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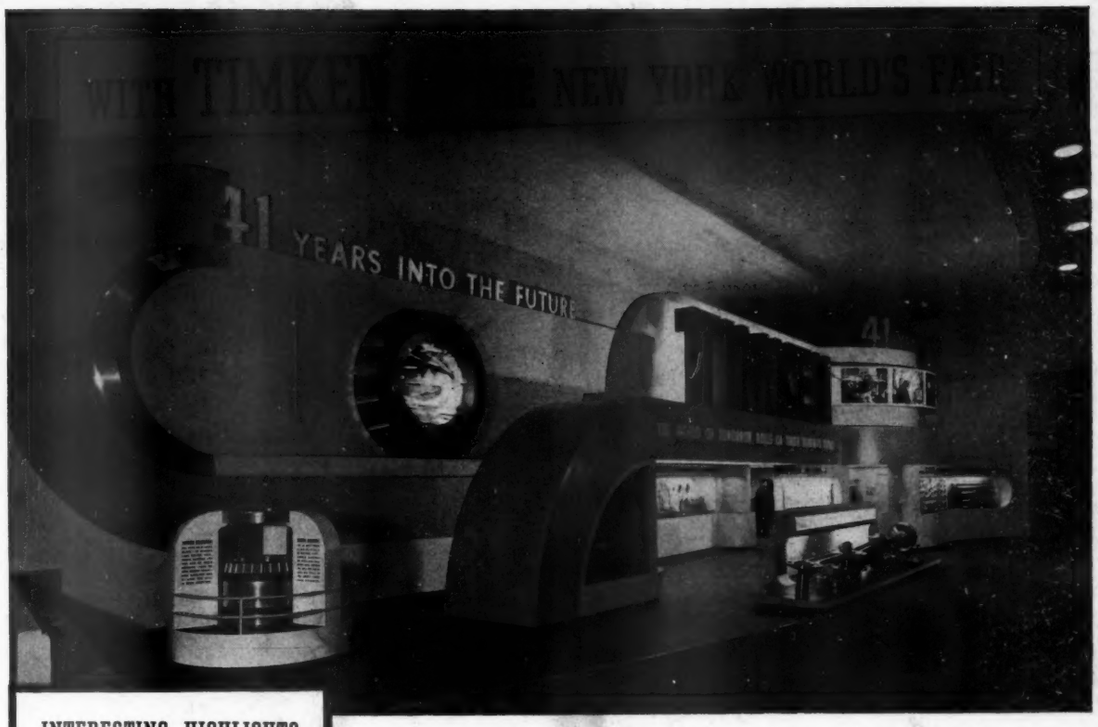

INTERESTING HIGHLIGHTS OF THE TIMKEN EXHIBIT

One of the first automobiles to be equipped with TIMKEN Bearings.

A TIMKEN Roll Neck Bearing having a load capacity of nearly three million pounds.

A machine that measures the thickness of a human hair in hundred-thousandths of an inch, as a demonstration of the precision with which TIMKEN Bearings are made.

A diorama showing in miniature the world's largest electric steel furnace — capacity 75 tons of steel per heat.

A TIMKEN Fuel Injection Pump cut away to show the internal mechanism in operation.

The various parts of a TIMKEN Bearing automatically assembling and disassembling to demonstrate the tapered design and construction of the TIMKEN Bearing.

A display dramatizing the Timken Roller Bearing Company's contributions to modern locomotive design—including TIMKEN Locomotive Bearings, main rods, side rods and other reciprocating parts.

And

THE TIMKEN ROLLER SKATERS in a sensational novelty act performed on a platform only nine feet in diameter elevated seven feet above the floor. The skaters perform ten times daily.

The exhibit of TIMKEN Products at the New York World's Fair has been acclaimed one of the outstanding features of this, the greatest show of all time.

Strikingly original in conception, wonderfully beautiful in its gorgeous color scheme and brilliant lighting effects, the Timken Exhibit emphasizes the keynote of the Fair "The World of Tomorrow" in a manner that captivates every visitor. But the Timken Exhibit has other claims to pre-eminence apart from its originality and beauty. Never before for example, has such a comprehensive display of bearings been seen in one place. Here are shown TIMKEN Bearings ranging from a few ounces in weight to one weighing more than *three tons;* bearings for every possible application in industry and transportation—from automobiles to railroad trains and from precision machine tools to huge steel rolling mills.

Equally impressive are the displays of other TIMKEN Products; including TIMKEN Alloy Steels, TIMKEN Alloy and Carbon Steel Seamless Tubing, TIMKEN Rock Bits, and TIMKEN Fuel Injection Equipment for fuel oil burning engines.

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One of the principal objects of the Timken Exhibit is to help increase the sales of Timken Bearing Equipped products. In this respect its value to the product manufacturer cannot even be estimated. The Timken Exhibit is located in the Metals Building adjacent to the Trylon and Perisphere.

THE TIMKEN ROLLER BEARING COMPANY, CANTON, OHIO

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The Oil and Gas Journal

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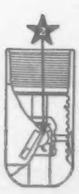
6 RESULTS You Can Be Sure Of When You Use a BAKER CEMENT Wash-Down WHIRLER FLOAT SHOE

FOR COMPLETE DETAILS SEE PAGES 225 and 226 OF THE BAKER SECTION OF THE 1939 COMPOSITE CATALOG

BAKER OIL TOOLS, INC., P. O. Box 71, Huntington Park, Calif.

You will always find—BAKER CEMENT GUIDING, FLOATING, and CEMENTING EQUIPMENT a perfectly balanced combination of the 3 features illustrated below.

1. STRENGTH. The seamless steel Shoe, in which the plug of Baker-Formula Concrete and the Bakelite BALL-TYPE Valve Assembly are firmly anchored, provides a unit that is stronger than the collapsing strength of the casing on which it is run. It will float the longest and heaviest string of casing with an ample factor of safety.



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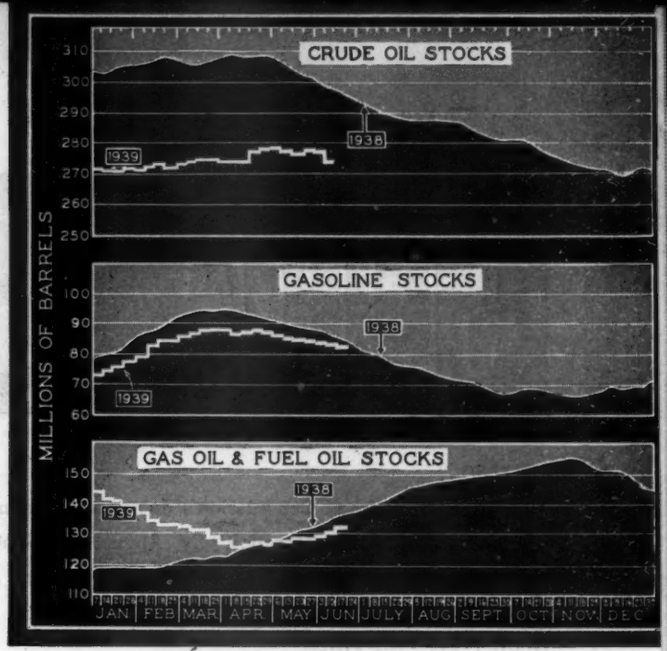
Trends

Texas' Shutdown Plan Will Continue Through the Next Three Months



WHILE Texas continued last week with a greatly decreased production, in line with efforts of the Railroad Commission to bring supply down to demand, producers in other states were not of the same mind, and as a result, production in the United States rose 77,116 bbl. a day over that of the previous week. Increases included 14,225 bbl. a day in Oklahoma; 13,000 bbl. in California; 16,925 bbl. in Kansas and 13,471 bbl. in Illinois. The increase of 13,446 bbl. a day in Texas was relatively small when its enormous total is considered. The Railroad Commission of Texas decided on Monday to continue its policy of 8-day shutdowns per month during July, August and September. No change was made in the method of allocating production in the East Texas field, as the commissioners desire to await final adjudication in the Rowan & Nichols case.

CRUDE PRODUCTION *3,451,563 bbl. daily average—up 77,116 bbl. One year ago 3,138,105 bbl.*

CRUDE STOCKS *274,692,000 bbl. as of June 10—down 3,255,000 bbl. One year ago 297,197,000 bbl.*

GASOLINE STOCKS *82,657,000 bbl. as of June 17—down 59,000 bbl. One year ago 83,831,000 bbl.*

GAS AND FUEL OIL STOCKS *131,835,000 bbl. as of June 17—up 1,062,000 bbl. One year ago 135,941,000 bbl.*

REFINERY RUNS *3,480,000 bbl. daily week ending June 17—down 30,000 bbl. One year ago 3,129,000 bbl.*

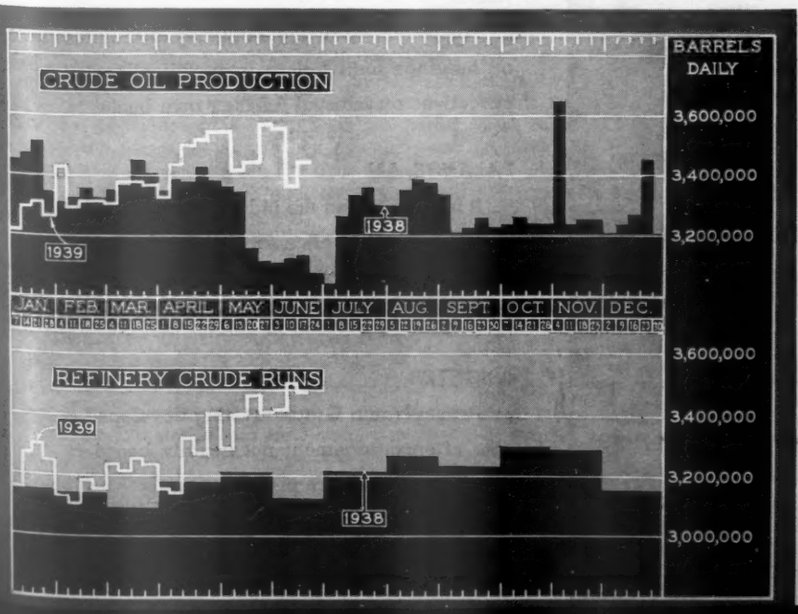
The efficacy of the Texas shutdown plan was shown very substantially by the fact that in the same week that production in the state was reduced 184,296 bbl. a day, and production in the United States 196,474 bbl. per day, crude oil stocks in the United States were reduced 463,571 bbl. per day. It would not have taken many weeks of production like that of the week ending June 17 to bring crude stocks down to a point where some refiners would figuratively be scraping tank bottoms. Even this week's figures are in line with production early in March, when refinery demand was much lower.

The most impressive oil well completed last week was a 13,638-bbl. producer on the Waddell ranch in Crane County, Texas, but a 6,000-bbl. well in the recently opened Ivy pool in Shackelford County, Texas, was of prime importance. Illinois contributed a 5,581-bbl. well and the Hittle pool in Kansas has four large new wells.

Fresh buoyancy was injected into the gasoline market by the action of an overwhelming majority of companies in meeting the half-cent tank-wagon advance instituted in 42 states by Sinclair Refining Co. A few important companies in the East and in the Gulf Coast have not yet responded, but hope is general that all will take some constructive step soon. Opinion in the East is divided as to whether the Sinclair advance will stick in that territory. It is declared by some observers that if the increase is to be maintained action will have to be taken within the next few days by the major holdouts, Standard of New Jersey, Sun, and Atlantic Refining. When these companies gave no sign that they intended to fall into line Texas Corp., which had met the Sinclair raise, rescinded its action so far as it affected four Atlantic Coast states and the District of Columbia. Gasoline consumption is swinging into its summer volume and indications point to record-breaking gallonage. Excessive runs to stills and slowness in reducing the nation's stocks are causing uneasiness.

DAILY AVERAGE PRODUCTION FOR WEEK

	June 17, 1939	Bur. Mines June est. of demand	June state allowables	June 10, 1939
Oklahoma City	110,775	.....	.....	93,150
Fitts	25,500	.....	.....	26,775
Remainder of state	317,200	.....	.....	319,325
Total Oklahoma	453,475	450,300	428,000	439,250
East Texas	372,548	.....	.....	372,548
West Texas	217,146	.....	.....	206,098
North Central Texas	117,549	.....	.....	111,200
Texas Panhandle	64,497	.....	.....	71,597
East Central Texas	90,100	.....	.....	90,449
Gulf Coast Texas	334,398	.....	.....	331,100
Southwest Texas	98,200	.....	.....	98,000
Total Texas	1,294,438	1,427,300	1,313,022	1,280,992
North Louisiana	73,815	.....	.....	73,580
Gulf Coast Louisiana	196,750	.....	.....	194,197
Total Louisiana	270,565	265,000	263,023	267,777
California	614,750	594,600	588,000	601,750
Kansas	168,550	152,400	165,880	151,625
Arkansas	57,555	54,700	57,641	56,915
Eastern fields	96,100	106,400	.....	97,100
Illinois	234,516	174,300	.....	221,045
Michigan	66,784	53,400	.....	66,943
New Mexico	116,730	117,000	113,000	116,820
Rocky Mountain area	78,100	95,600	.....	74,230
Total United States	3,451,563	3,491,000	.....	3,374,447



SPARKS FROM THE NEWS

SETTLED

The Texas Railroad Commission's decision to continue the 8-day-a-month shutdown through July, August and September should eliminate uneasy speculation on that subject.

MORE GASOLINE LINES

By the end of the year Chicago will be equipped to receive up to 70,000 bbl. daily of gasoline transported from other refining areas by means of pipe lines.

NEW CONCEPTION

Oil men traversing Texas, Oklahoma, Illinois and Pennsylvania to visit the world's fair are interested in viewing a New York conception of the industry they represent.

THE SHORTEST DISTANCE

Drilling contractors are becoming quite critical of the straightness of wells they drill. They say the cheapest distance between the surface and oil is a straight hole.

WAITING

Mexico recently paid a million dollars to foreigners whose land was taken from them by that country many years ago. The oil industry is awaiting to see some action in regard to properties owned in Mexico by United States companies.

DOESN'T MIND

When the higher price for gasoline does not go to the tax collector, but is a stop-loss recourse, the motorist pays cheerfully.

ANXIETY

The industry is turning anxious eyes toward a small group of major companies in the East which have not yet lifted tank-wagon gasoline prices out of the bog.

APPROVED

Now that the interstate compact has been endorsed by the president, the secretary of state and the secretary of the interior, Congress might as well make it unanimous.

PEACETIME PROPHECY

J. E. F. deKok, managing director of Royal Dutch, commenting upon 52 per cent of the world's mercantile marine now being oil-fired, predicts that the return of tranquillity will see a great increase in motor traffic and an eventual rise in demand for oil products.

UNUSUAL

California Legislature defeated an oil and gas severance tax sponsored by the new governor. It is not often these days that a legislature passes up an opportunity to levy a tax.

RELIEF

Postponement of the Mahoney committee oil hearings until fall or later will allow oil executives an interval for their own business.

BALANCE ALL

It is to be hoped the industry will not have to pay too high a price for that 3,255,000 bbl. withdrawal from crude stocks caused by the record crude run to stills.

BRIGHTER

Pennsylvania Grade meeting developed a note of encouragement not usually heard at meetings of eastern producers.

Site of Texas Co.'s first producer marked. *(Story on Page 38)*

By JAMES McINTYRE

How Much Oil Is Sold Under Price?

The question of how much oil is being sold under the market price in the United States is met by the query: under whose market price? For example, in Kansas and Oklahoma there are several sets of posted prices for oil below 30 gravity, and in the Gulf Coast there are differences in the posted prices for oil above 34 gravity. Posted prices by gravity in North Central Texas and in North Louisiana are lower than they are in Oklahoma and Kansas, all of which supplies plenty of material for argument as to the relation of prices for oil in one field to those for the same grades of oil in another.

On the basis of the highest posted prices paid for oil on a gravity schedule in Kansas, Oklahoma, Texas, Arkansas, and Louisiana it is said that 117,785 bbl. of crude oil per day is being sold at prices ranging from 9 to 23 cents under the highest posted market prices. Listed by states the average daily sales of such oil is given as follows: In Oklahoma, 10,090 bbl. at 9 cents under; western Kansas, 3,490 bbl. at 21 cents under; eastern Kansas, 6,350 bbl. at 9 cents under; North Texas, 11,835 bbl. at 13 cents under; East Texas, 7,675 bbl. at 23 cents under; Texas Gulf Coast, 10,380 bbl. at 14 cents under; North Louisiana and Arkansas, 33,190 bbl. at 19 cents under, and Gulf Coast Louisiana, 34,775 bbl. at 14 cents under.

East of the Mississippi the most unsatisfactory price situation is in Illinois. Major purchasers, with pipe line affiliates, post a flat price of $1.05 per barrel for crude oil in the Central basin fields, but on June 15, with production at 223,000 bbl. a day, 54,200 bbl. of oil was going to refineries for which producers received an average of only 72 cents per barrel, or 33 cents under the posted price. There is no question about underpriced oil in Illinois, while there may be in the Mid-Continent states where posted prices are at variance. In the middle of May 44,900 bbl. of Central Illinois oil was being bought at 31½ cents per barrel under the posted price, which at that time was $1.15. With an increase of over 9,000 bbl. a day on June 15 the average cut price had fallen from 83½ cents to 72 cents per barrel.

The total quantity of underpriced oil, including that out of Illinois and the five states in the mid-continental area, is given as 171,985 bbl. per day and the average price at which it is sold below the highest posted prices in the same general territories is 20.9 cents per barrel.

In western Kansas where producers of 3,490 bbl. of oil are paid an average of 21 cents under the market, the oil comes from wells that have no other possible market. In eastern Kansas the crude is being purchased on a gravity basis and not under the market paid in that area, but at prices that are below the highest posted for crude of the same gravity in other parts of the state.

Volume of Oil Marketed Under the Highest Posted Prices

	May 15		June 15	
	Bbl. daily	Under price (cents)	Bbl. daily	Under price (cents)
Illinois	44,960	31.5	54,200	33
Western Kansas	3,990	27	3,490	21
Eastern Kansas	7,185	8	6,350	9
Oklahoma	12,075	10	10,090	9
North Texas	10,840	13	11,835	13
East Texas	5,040	23	7,675	23
Texas Gulf Coast	11,630	14	10,380	14
North Louisiana and Arkansas	31,560	19	33,190	19
South Louisiana	33,350	14	34,775	14
Total	160,730	19.8	171,985	20.9

The 10,090 bbl. of Oklahoma oil that is being moved at 9 cents below the highest posted prices, comes mostly, from the southern fields of the state, although some Kay County oil is said to figure in this underpriced situation. Oil in the southern fields ranges all the way from 20 gravity up to high-grade oil. It is bought by district refiners.

In North Texas where an unsatisfactory pipe line situation held back the progress of the pools in the Wichita Falls district, 11,835 bbl. of underpriced oil is thrown on the market for want of purchasers willing to buy at the highest posted prices. In East Texas a small percentage of the total production is moving at reduced prices. Oil is being bought there as low as 75 cents per barrel while the posted price in the field is $1.10. On the other hand a small volume of oil is going out of the field at prices higher than $1.10 having been contracted for before the posted market was reduced to the $1.10 level.

Louisiana-Arkansas Examples

In Louisiana and Arkansas in the sense that crude is being sold under prices quoted by pipe line companies serving the fields, there is said to be no indication of it at this time. However, considering the posted gravity schedules for North Louisiana and Arkansas crude, there are major fields from which crude is moving under the prices paid for the same grades in other fields covered by the gravity schedules. The Lisbon field, for example, is producing about 3,100 bbl. daily at a price of 73 cents for oil below 34 gravity; 75 cents for 34-34.9 gravity and 77 cents for 35 gravity and over, which schedule is 18 cents below the highest posted gravity prices in the state. Schuler, Arkansas, crude, to the amount of about 15,000 bbl. a day is moving out at 69 cents per barrel, or 15 cents below the price paid for oil of similar gravity in other fields covered by the major companies' gravity schedules. It must be said, though, that the Schuler prices are posted by pipe line companies serving the field and no company buying in Schuler is paying higher prices than those named.

Magnolia, Columbia County, Arkansas, a rapidly growing field, takes the same prices that are paid for Jones sand crude in the Schuler field; likewise the Buckner and Village fields in the same county, and these are classified as underpriced fields, whereas all producers in these fields are treated alike by the buyers.

The situation in the southern Louisiana fields, where 34,775 bbl. of crude oil is going to market at 14 cents under the highest Gulf Coast prices for crude of the same gravity, is debatable because it can be argued that the oil is not underpriced, as it is sold on a posted price market. Lack of competition among buyers has much to do with the apparent discrimination. A very generous allowable production is meted out to producers in the Louisiana coastal fields and producers seem quite willing to sell at a discount if they can get rid of their production on a comparatively large scale. These Louisiana fields are said to affect East Texas very materially. The latter field with its $1.10 posted price has trouble trying to compete with pools where posted prices are nearer the $1 mark.

The situation on the Texas Gulf Coast is not as serious as in coastal Louisiana. Only 10,380 bbl. goes to market in competition with oil of the same grade that costs 14 cents more per barrel in other coastal pools.

Prospect of New Shallow Area, North Flank, Wichita Mts.

By CLARK MILLISON and PAUL REED

The area which is opened for exploration by the recent discovery of large production on the north flank of the Wichita Mountains in southwestern Oklahoma extends westward from the Cement pool in Township 5n, Range 9w, to the Sayre field in Township 9n, Range 23w. The principal area in which exploration operations are being conducted covers parts of Caddo, Kiowa, and Washita counties; several tests are drilling there at the present time. The south part of the area under consideration is occupied by the surface expression of the Wichita Mountains. There basement rocks (such as granite) and Arbuckle and Viola limestones are found at the surface. They rise above the flat plains as prominent hills. Northward from the mountains the rocks plunge rather steeply and are interrupted by folds and faults. Overlapping and concealing these folded and faulted rocks of Cambrian, Ordovician, Silurian, Devonian, and Mississippian age are: First, a conglomerate known as Pontotoc which is composed of detrital material eroded from the mountains; second, beds overlying the Pontotoc which consist of variously colored shales and a few sandstones of Permian age.

The importance of this area was indicated last month when the well drilled by Gled Oil Co., Russell S. Tarr and others in Section 20-7n-17w, disclosed and proved a large new petroleum reserve in Oklahoma. Production is from the Viola limestone, total depth 1,055 ft. It is estimated that the well will produce 2,000 bbl. per day. After the well was killed with mud and the pipe was cemented the flow of oil was resumed at the same rate. Production before the well was shut in waiting the pipe line connections, was approximately 13,000 bbl. and no decline in the rate of production was noted while the well was flowing. This well is the first well in the area to produce below the Pontotoc.

Wells were drilled in the Pontotoc in the early days of exploration for oil in Oklahoma. Various statements have been made as to these early operations. Correcting what has previously been reported, it can be said that it is well authenticated that the first well was drilled for oil in this area in 1901. The first oil was discovered in 1904 near Gotebo in Section 27-7n-17w. Since that time more than 300 wells have been drilled but only 15 per cent have penetrated the Pontotoc beds; in other words only 15 per cent have had a chance to discover the production recently found in the Gled-Tarr well. From these few deeper tests a composite log of the rocks encountered which are older than Woodford shale has been constructed to accompany this article. The small Pontotoc production, the favorable reservoir beds in the Hunton, Viola, and Simpson, and the shows of oil found in the latter beds, have encouraged operators to continue exploration in this area. The new evidence of prolific production from the Viola limestone suggests that the Hunton and Simpson may produce also, and places a new major importance on the area.

The exact thickness of the Woodford shale or of the Hunton limestone is not known because no well has ever penetrated the full section. It is believed that the Woodford is at least 300 ft. thick and that the Hunton is more than 400 ft. thick. Porous beds are present in the Hunton limestone and shows of oil have been found in wells which have been drilled in this formation. It is a potential producing zone. The Sylvan shale is approximately 170 ft. thick. The Viola limestone is about 600 ft. thick. Several porous zones are present in this formation. Underlying the Viola limestone is the Wilcox sandstone, about 175 ft. thick. Only a few shale breaks occur in this thick sand zone. The Simpson formation of which the Wilcox sandstone is an upper member is approximately 1,400 ft. thick. Several sand bodies as well as porous limestone not thicker than 40 to 50 ft. occur in this formation and are potential producing zones. The Arbuckle limestone underlying the Simpson formation is probably more than 6,000 ft. thick. Whether porous zones in this formation will produce oil is questionable. Steep dips have been encountered by many wells and because of this, unusually thick sections have been reported because these beds, which have been drilled, lie at an angle.

Because the beds underlying the Pontotoc beds are a part of the Wichita Mountain system, abundant and diversified structure is present. Many faults, anticlines, synclines, grabens and horsts are present and traps for accumulation in this area could be:

1. Faulted, domal, or elongated anticlines where sufficient reverse dip is present between the anticline and the mountains.

2. Faulted and truncated anticlines where dip forms one side of the trap, truncation the opposite side, faulting forming the third, and the dip on the unconformity the fourth. The area in which the Gled-Tarr well was drilled probably belongs in this classification.

3. Faulted and truncated synclines or grabens, where the reservoir beds are preserved in the graben and subsequent tilting has elevated the part of the graben nearer the mountains because this part is nearer the point of elevation. In this event, the highest part of the graben is now structurally higher than the truncated edges of the same reservoir beds on the adjoining plunging truncated anticline or horst.

Aerial photography of area in Wichita Mountains 22 miles southeast of Gled-Tarr well showing southeast end of graben in which well is located. Indication is given of the complicated structure to be expected below Pontotoc beds to the north

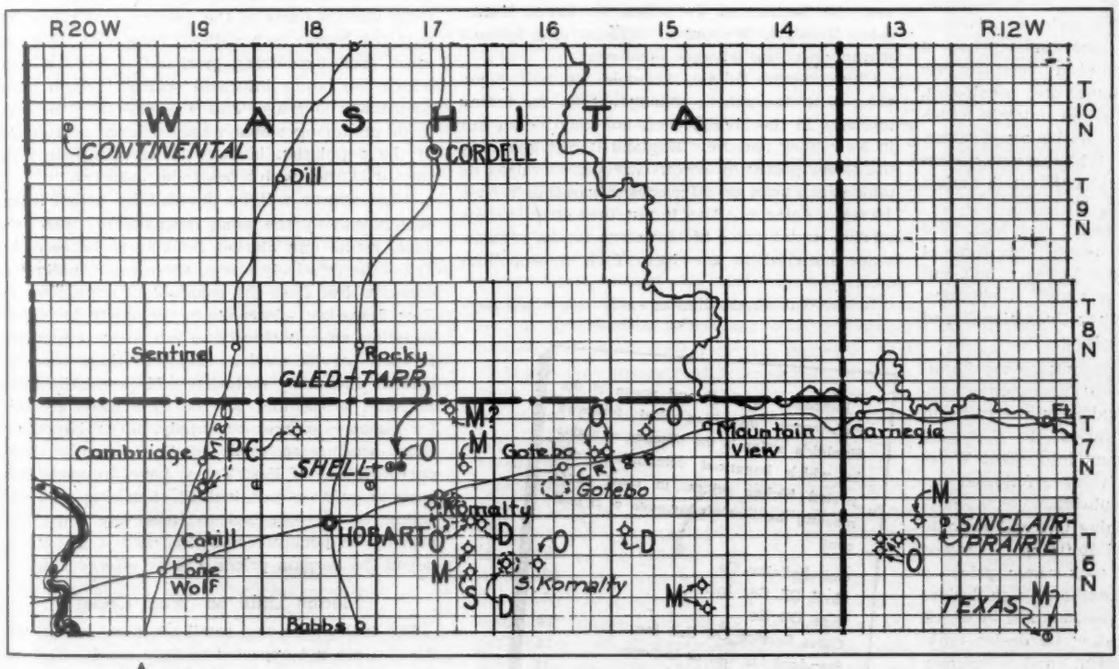
(Photo courtesy Kargl Aerial Surveys, Ltd.)

Methods of exploration at this time are surface and subsurface mapping. It is possible magnetic and gravimetric data, if properly interpreted, can be used. Aerial photography and soil analysis may be used as supplementary methods to subsurface mapping. However, it will be the principal method by which new prospective areas will be discovered. Farther down the north flank of the mountains where the Ordovician beds are deeper than 3,000 ft., seismograph work may be used to localize prospects and confirm subsurface work. Careful analysis of samples and the use of core orientation, where possible, will be bases for subsurface work.

Current drilling operations extend over the entire area. At the easternmost edge, Texas Co. has been shut down since October 1938 at its No. 1 Smith in the center of NE NW Section 2-5n-12w. Top of the Viola limestone was found at 2,543 ft.; 7-in. casing is cemented at 2,544 ft.; total depth is 2,556 ft. A good showing of gas and an odor of oil was found in the Viola limestone but as yet no test has been made. This temporarily abandoned well is about 15 miles west of the Cement pool which has produced for a number of years from Permian sandstones between 1,200 and 2,500 ft. in depth. Recently, deeper production (5,500-6,500 ft.) has been discovered in this pool and many large wells have been completed in this Pennsylvanian zone. One well drilled to 10,080 ft. was still in Pennsylvanian beds when the test was abandoned. Depth to the Viola limestone in this pool is probably greater than 12,000 ft.

Sinclair Prairie Oil Co. is drilling below 625 ft. at its German No. 1, SW NW NW Section 1-6n-13w. This test is on a prospect located by seismologic survey. The goal aimed for is the Wilcox sandstone at about 6,000 ft. The west offset to the Gled-Tarr discovery well has been commenced by the Shell Oil Co. which is using a portable core drill unit to drill to the Viola limestone. A semiwildcat venture is being commenced by independent operators in the NE corner of Section 25-7n-18w, 1 mile southwest of the discovery well. Independent operators are also starting a wildcat test 7 miles west of the Gled-Tarr well in NE cor. Section 25-7n-19w. Twenty-five miles northwest of the discovery well, Continental Oil Co. is drilling below 12,500 ft. at its Proctor No. 1 in NW¼ Section 28-10n-20w. This is the deepest test that has ever been drilled in Oklahoma. Casing was cemented at 10,172 ft. after approximately 5,000 ft. of conglomerate had been drilled. At 11,500 ft. the well was in lower Pennsylvanian. Normal depth to the Viola limestone at this location will probably be greater than 14,000 ft. Several other wildcats are due to start in this area during the next 60 days.

The completion of the Gled-Tarr well has opened a new large potential area. After all present exploratory techniques have been used to localize a prospective area, it will be necessary to await the result of drilling for determination of the presence of oil and confirmation of the geologic idea. Complicated structure will supply many surprises as wells are drilled through the Pontotoc beds. Offsetting this, however, is the shallow drilling and possible high yields. Fifteen exploratory wells can be drilled in this area for the expenditure of one in Central Oklahoma. After subsurface data from many new wells has been obtained, risks involved in the search for oil by deeper exploratory tests farther down on the north flank of the Wichita Mountains will be less. At that time such projects will be worth while.

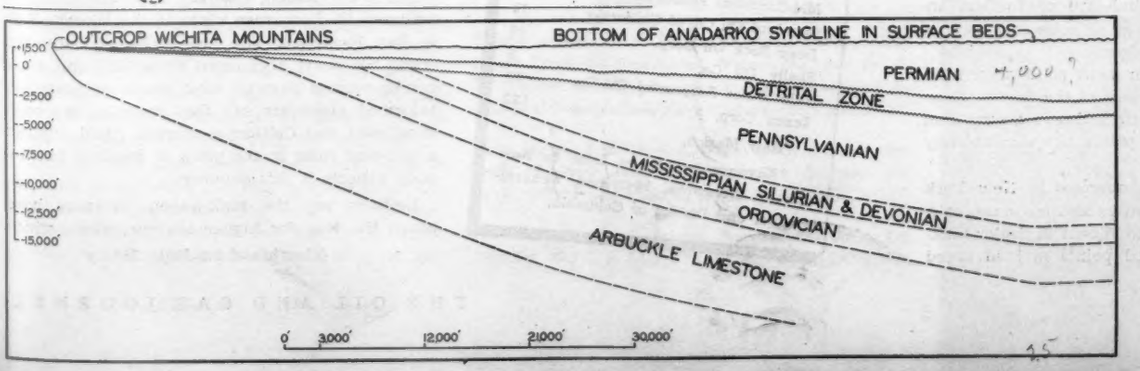


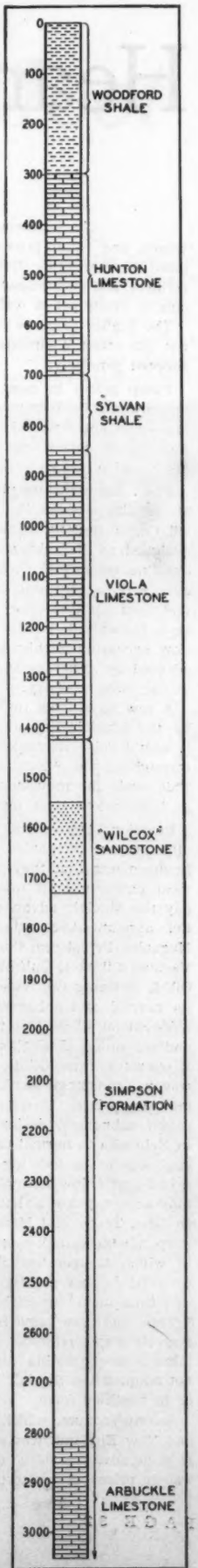
LEGEND

M	MISSISSIPPIAN	ENCOUNTERED	BELOW PONTOTOC
D	DEVONIAN	"	"
S	SILURIAN	"	"
O	ORDOVICIAN	"	"
PC	PRE-CAMBRIAN	"	"

OIL POOL

Above: Areal map showing formations encountered below Pontotoc conglomerate. Right: Composite type of log of Lower Paleozoic rocks on north flank of Wichita Mountains. Below: Ideal north-south structural cross-section near discovery well





Gasoline Advances Hearten Industry

By T. F. SMILEY

Sweeping advances in tank-wagon and retail prices of gasoline have energized the marketing division, given new heart to refiners, and encouraged the hope that threatened cuts in crude prices will not materialize.

The higher prices which Sinclair Refining Co. put into effect Wednesday of last week have been adopted generally.

Pump prices in most cases have been raised accordingly. Tankcar prices have gone up in some areas and are expected to go up in others. Nothing else in recent gasoline market history has had so wide and so tonic an effect.

The movement—its ultimate extent unforeseen at the time—began last May 23, when Standard Oil Co. of Indiana initiated a series of advances designed to lift subnormal tank-wagon prices of gasoline to normal throughout its territory. By June 8 these increases, in some cases a half-cent, had been put into effect in all 10 states in which it is recognized as the key marketing organization, excepting Michigan. The higher prices were adopted by other companies with retail outlets in the same territory.

A few days later the industry was electrified by the Sinclair announcement that on June 14 it would raise its tank-wagon prices a half-cent throughout the 42 states in which it operates. This made the movement virtually national, and its implications were far-reaching.

Reactions throughout the country were immediate. Other companies loosed a stream of announcements that they would meet the raise, in most cases without qualification. On the same day the Sinclair advance went into effect Texas Co. announced a raise. It was followed by Magnolia Petroleum Co. (subsidiary of Socony-Vacuum Oil Co.), Gulf Refining Co., and Humble Oil & Refining Co. National Refining Co. raised its normal and subnormal tank-wagon prices a half-cent on all grades of gasoline to both dealers and consumers throughout the 20 states in which it operates. Pure Oil Co. raised its dealer tank-wagon, consumer tank-wagon, and consumer tankcar prices. Standard Oil Co. (Nebraska) raised subnormal dealer and tank-wagon prices in Nebraska to normal or to the extent of a half-cent where the existing prices were more than a half-cent below normal. Ohio Oil Co. raised its tank-wagon price a half-cent in Ohio, Illinois, Indiana, Texas, and Missouri. Barnsdall Refining Corp. advanced tank-wagon prices in the 13 states in which it operates. Standard of Indiana announced further correction of subnormal prices, this time including Michigan.

Thus increases came in swift succession, until scarcely a spot remained east of the Rocky Mountains where gasoline distributing concerns had not adopted the Sinclair prices either completely or in modified form.

Socony-Vacuum, which operates in New York and New England, was an exception to the rule. It made advances of .25 to .5 cent in dealer tank-wagon prices at scattered points and advanced consumer tankcar prices .1 cent in most of its territory. It reduced the dealer tank-wagon price .7 cent in Syracuse, N. Y., and .3 cent in Worcester, Mass. Predictions were made that Socony-Vacuum prices would be lifted to conform with those in contiguous territory within a short time.

Shell Announces Advances

Shell Oil Co., Inc., announced tank-wagon advances ranging from .1 to .5 cent throughout New York and New England, excepting Vermont, southern Connecticut, western New York and the city of Syracuse. At the same time the company raised its tank-wagon prices a half-cent in New Jersey, Pennsylvania, Maryland, Delaware, and the District of Columbia. In Iowa, Minnesota, Missouri, Wisconsin, Illinois, and Indiana it announced an advance of .3 cent.

Cities Service Oil Co. increased its tank-wagon price with the others throughout its marketing territory in the Middle West and Southwest, but in New York and New England it met generally the prices posted by Socony-Vacuum. It raised its tank-wagon price on all grades of gasoline in New Jersey a half-cent. Also it put into effect a new service station price of 16.8 cents for its regular-grade material in the New York metropolitan area.

In the Gulf Coast district early this week only two major companies, Pure Oil Co. and Cities Service Oil Co., had increased tank-wagon prices on all grades of gasoline to meet the Sinclair advance. It was believed other companies would adopt the higher prices, and all independent service stations posted a half-cent increase on all grades of gasoline June 14.

As the present week opened important companies which had not yet fallen into line were Standard Oil Co. of New Jersey's marketing subsidiaries, Sun Oil Co., Standard Oil Co. of Ohio, and Atlantic Refining Co. (except to follow Socony-Vacuum in New York and New England).

Monday of this week Texas Corp. rescinded the half-cent advance which it had put into effect in New Jersey, Delaware, Maryland, Pennsylvania, and District of Columbia. In these states Texas is in competition with holdout majors. Belief was expressed that all would take some constructive action soon.

Standard of Ohio issued a statement that it would be impractical for the company to follow the general Sinclair advance, declaring that at points in its territory the increase could not be passed on to the consumer by the jobber and dealer. The company has begun correcting subnormal prices and plans to make frequent surveys of local conditions with a view of making needed adjustments.

Almost without exception the additions to the tank-wagon price were passed on to the consumer. Significant in this connection were reports from various parts of the country that motorists paid the higher rate without complaint, in some cases even expressing gratification over a step which the better informed realized should have been taken long ago. This was especially the case in oil-producing states where a large percentage of the population is more or less familiar with the difficulties which beset the industry.

What course will be pursued by price-cutting dealers and by the small independents who produce, refine and market remains to be seen. In Texas the relatively few of these small integrated concerns left after the epidemic of shutdowns in East Texas last winter see in the newly developed situation an opportunity to lure more customers to their service stations. Some of them seem to believe that many motorists will resent the raise in retail prices and will be in a mood to look for cheaper sources of supply. So it has come about that some small retailers, mainly those operating out of East Texas, have dropped their gasoline price a cent instead of raising it. Their action is not expected to have any important bearing on general conditions, and it is not believed the bargain prices will be offered long.

Means Little on West Coast

The tank-wagon and retail advances east of the Rockies are not expected to have much effect on West Coast prices. So long as California crude prices remain at their present level little fluctuation in gasoline prices is likely. After more than a year of steady accumulation of crude and refined oils California marketers are likely to feel satisfied if they are able to preserve the present level of prices for products. Another reason for expecting no advance in California gasoline prices is the feeling that any raise might have a tendency to discourage visits to the World's Fair in San Francisco. The base price of California crude has stood unchanged since 1937 and retail gasoline prices likewise have shown no variation. Informed observers say that from an economic standpoint the California market could support a half-cent raise in the price of gasoline, but nobody expects it this summer.

Refiners say the tank-wagon advances have paved the way for higher tankcar prices, which

(Continued on Page 34)

Indicative of the broad scope of the tank-wagon advances that followed Sinclair's action is the number of states in which important companies have posted higher prices, in most cases meeting the Sinclair increase of a half-cent:

Gulf Refining Co.	20
Shell Oil Co., Inc.	23
Pure Oil Co.	15
Cities Service Oil Co., Inc.	18
Standard Oil Co. of Indiana	10
Socony-Vacuum subsidiaries	15
National Refining Co.	20
Pan American Pet. & Trans. Co.	2
American Oil Co.	1
Continental Oil Co.	12
Phillips Petroleum Co.	12
Barnsdall Refining Co.	13
Ohio Oil Co.	5
Mid-Continent Petroleum Corp.	10
Standard Oil Co. of California	*1
Deep Rock Oil Corp.	10
Skelly Oil Co.	6
Tide Water Associated Oil Co.	20
Texas Corp.	†23

*New Mexico.

†Advance withdrawn later in New Jersey, Delaware, Maryland, Pennsylvania, and District of Columbia.

Optimistic Note Sounded at Pennsylvania Grade Meet

By J. P. O'DONNELL

PITTSBURGH, Pa., June 16.—Producers and refiners of Pennsylvania Grade crude oil and marketers of its products were given a highly encouraging view of their future by speakers who addressed the sixteenth annual meeting of the Pennsylvania Grade Crude Oil Association during a stimulating two-day program here yesterday and today. Among other significant statements they heard:

W. F. Clinger, president of the association and also president of Clinger Oil & Gas Co., of Tidioute, and vice president of Superior Oil Works, Warren, declare that "We have an adequate supply of nature's best material. We have competent refiners and technicians at our command. And we have a market that is ready to absorb Pennsylvania products";

C. Bedell Monro, president of the Pennsylvania Central Airlines, estimate that "90 per cent of the lubricants for all the airplanes now being flown in the United States is provided by the oil industry of this region alone";

Dr. A. W. Gauger, director of research, school of mineral industries, Pennsylvania State College, report that "Recent surveys indicate that the ratio of proved reserves in the Pennsylvania area to the present annual production is a little larger than for the country as a whole. This means that at present the Pennsylvania area is in a better position to face future demands than is the industry as a whole";

Samuel F. Pratt, European representative of the Pennsylvania Grade Crude Oil Association, state that "Today our European membership is larger and stronger than ever before and the interest in new memberships continues from many European countries";

Leo Ranney, inventor of a method of horizontal drilling, declare that "The maximum cost of developing (by his method) a tract of 600 to 800 acres, where the sand is 500 ft. deep, is estimated tentatively at $400 per acre against current costs of $3,000 per acre."

Mr. Clinger told the association the depression of the past several years has not been peculiar to the Pennsylvania oil industry, citing as evidence that 32 major oil companies earned but 3.24 per cent on their investment last year; that commodity prices have fallen as much as 35 to 50 per cent from their 1926 norm, and that nations throughout the world have failed in the attempt to keep production within demand. He added that "except for our cooperative efforts, Pennsylvania oil prices might well have fallen further. If we have not been completely victorious over an international commodity depression, we, at least, can be numbered among the survivors."

Because "we have been given a raw material superior to any other . . . Pennsylvania crude has established a good name for itself . . . our association provides a cooperative agency in which producers and refiners can unite to do a job that could not be accomplished separately . . . our association is engaging in research that will keep us ahead of our competitors," Mr. Clinger viewed the future of the industry with confidence of success.

"If there is anything wrong with the Pennsylvania oil industry it is lack of vision of the future. We do not seem to face the world with the confidence and courage that 80 years ago drilled the first well and established a mighty industry. We do not seem to have the same fighting spirit it took to found the Pennsylvania Grade Crude Oil Association. Temporarily, our pioneering urge has quieted. One day we or our successors will look back on this day in wonderment. There will appear to be too few who were able to recognize the dawning of a new day, a day in which the Pennsylvania oil industry, along with all America, will again take up the march to a manifest destiny," Mr. Clinger concluded.

Dr. Gauger regarded the strong position of Pennsylvania crude reserves as a basis of a "healthy outlook, one that should still the fears of those who feel that Penn Grade oils will soon pass out of the picture because of lack of supply of crude stock." He also pointed out that while "high-grade motor fuel has been produced by various chemical processes; to date, however despite expensive research, no lubricant that even begins to compare with the product of petroleum has been synthesized. For keeping the wheels of industry and pleasure turning petroleum lubricants are far in advance and Pennsylvania leads the pack."

Dr. Gauger also discussed the extensive research program the Pennsylvania industry is carrying on, a program which, he said, insures the future of the industry. "It is not the type of insurance policy that pays off at the demise of the policyholder but instead is a type of health insurance which looks to the well-being of the policyholder at all times. Dividends have been, are being and will continue to be paid and the protection is great for a relatively small premium."

The role of lubricants in the expanding field of aviation was described by Mr. Monro who was particularly encouraging when he said that "aviation oils will continue to be heavier than automotive engine oils so that the expanding air market for your products should continue to make greater drafts on your residual bright stocks rather than the lighter neutral fractions." He said that by using lubricating oils processed from 100 per cent Pennsylvania Grade crude, his

Top picture: Parker L. Melvin and Clarendon E. Streeter, Bradford, Pa., producers

Second picture: W. F. Clinger, president Pennsylvania Grade Crude Oil Association, Warren, Pa., and Dr. A. W. Gauger, director of research, school of mineral industries, Pennsylvania State College. (Both speakers)

Third picture: F. E. Richart, Wellsville, N. Y., and Otto Koch, president Kendall Refining Co., Bradford, Pa. (Both men directors of the association)

Fourth picture: R. B. Bossler, Brundred Oil Corp., Oil City, Pa., and C. L. Suhr, The Pennzoil Co., Oil City, Pa.

company had been able to lengthen the period between overhauls first from 350 to 650 hours and later to 700 hours and also was able to reduce consumption 56 per cent.

However, he added, "Much can be accomplished with lubricants, where improvements hitherto have not been as pronounced as in fuels. Hence there is a wider field. Greater oiliness and film strength are required in lubricants. Also notable to observers has been the relatively low oxidation resistance of oils used in aircraft engines. There are many avenues of research on the subject which hold both challenge and promise for future developments."

Foreign Markets

The importance of foreign markets to the Pennsylvania region can not be overemphasized, Mr. Pratt said, because of the fact that "probably 20 per cent of our crude is represented in current exports." He coupled that statement with the prediction that "if the European situation will quiet down, 1939 will be a good year for us." Chief hindrances are the system of exchange control and import restrictions as practised by Germany. With Germany's seizure of Austria and Czechoslovakia, he added, "our emblem oil sales to these former countries are being severely curtailed and may be wiped out in time unless unforeseen changes take place."

Development of domestic refining facilities by European countries is also curtailing imports of lubricating oils by these countries, Mr. Pratt said, and he cited France and Italy as examples. In the former, he said, imports of crude increased 6,000,000 bbl. in 1938 while lube and other heavy oil imports dropped 116,000 bbl. and in the latter crude imports gained 3,889,000 bbl. and lubricating oil imports dropped 184,000 bbl. The building of additional refining capacity in England, Portugal, Denmark and Sweden is part of the trend "that is bound to affect the petroleum industry and our part of it. However, because of the high quality of our oil, I do not believe that the resultant decline in imports will materially affect Pennsylvania oils."

Horizontal drilling as a possible solution to the Pennsylvania region's need for producing methods that will provide a "development cost, which, instead of being $3,000 per acre, will be one of a few hundred dollars per acre and will recover, not 15 to 30 per cent of the oil, but from 60 to 85 per cent" was discussed by Leo Ranney, who described the drilling of a well into an outcrop near McConnellsville, Ohio, recently. While satisfied with his first efforts in the outcrop well, Mr. Ranney described it as only an experiment and therefore "it has the same relation to future development as creeping has to walking."

Senator James J. Davis, home from Washington for the week-end, was an unscheduled speaker who drew applause when he predicted the capital gain and surplus profits taxes would be replaced and social security taxes on business would be lightened. He declared that "the man in the street is now beginning to realize what tax on business means" and that a trend is under way that will eventually sound the deathknell of the business competition and persecution of the present national administration.

"A friendly revolution in which man appears to be trying to establish his supremacy over the corporation is current." Victor H. Scales of the American Petroleum Institute said in talking on public relations. "Man evidently is not opposed to the idea of the corporation but desires that its economic benefits be broadened and shared—just as he demanded that machines serve rather than enslave him, that government represent rather than rule him. How long the revolution will last depends upon how well corporations appreciate that what the mass man wants he usually gets and upon how soon they recognize that it is better—by anticipating, interpreting and catering to public opinion—to ride the tide of favor by voluntarily making minor changes than to attempt to stem the flood of major adjustments to which ultimately they will be subjected."

"So far as oil is concerned," he concluded, "it will always have to get along with people. It has demonstrated its ability to conquer physical, financial, technological and legal difficulties but the balancing of the human equation is something else again. For this industry and other industry human values are becoming supreme values. If through public relations efforts we shall succeed in so humanizing our industry that it is regarded by its many publics as 'nice people,' we need have little fear of the future."

Harvey Stowers, sales promotion manager, Studebaker Corp., said that salesmen are the most important and yet the most neglected men in industry today. Since the salesman is your contact with the public and since your business is dependent on its public, his ability is a measure of the success you will attain, he said. Contending that selling is as much a profession as low or medicine, he contrasted the time and money spent on educating an individual for those pursuits in contrast to the indifferent manner in which sales men are chosen and the absolute lack of training that the importance of their position demands.

GASOLINE ADVANCES

(Continued from Page 32)

they must have if they are to get any profit out of their gasoline. Up to within recent weeks refiners generally were manufacturing gasoline at a loss. Improving conditions, including heavier consumption and substantial withdrawals from unwieldy stocks, have enabled most of them to raise their tankcar prices to a point which permits them to break even or perhaps make a small profit. However, there were no corresponding advances in tank-wagon and retail prices in most areas, with the result that refinery prices could be carried no higher. With this difficulty removed by the broad advances ushered in by Sinclair's action, refiners expect to benefit. Already tankcar prices have been pulled up an eighth in some regions, and a rising refinery market is believed to be in prospect generally.

But interest in the tank-wagon raises goes beyond their immediate benefits to the marketer and their ability to move tankcar prices to higher levels. It extends to their effect on crude schedules. The specter of lower crude prices has haunted the producing division for months. Though some have treated the subject lightly, declaring there was nothing in existing conditions to afford ground for fears, uneasiness has been admitted by many informed men in the industry.

H. F. Sinclair, in announcing his company's advance in tank-wagon prices, expressed the feeling of a large section of the industry when he said: "The price of products must go up or the price of raw material must go down. Better product prices should help to avoid a reduction in the price of oil, which would bring about a downward cycle imposing increased hardships upon oil producers in particular, but ultimately upon everybody."

"Unless the prices of refined products are increased, the only alternative is a reduction in the price which refining companies pay for their crude oil," declared Paul Ryan, president of National Refining Co., in announcing that his company would meet the Sinclair advance. "This reduction would work a serious hardship on the hundreds of thousands of small business men who depend for their livelihood on the production of petroleum."

C. E. Foster, vice president in charge of marketing for Cities Service, said: "Unless prices of refined products are increased we believe a reduction in crude oil prices will be necessary. This will entail hardship on the millions of men, women and children who are dependent on the oil industry."

It is a matter of common knowledge that the crude production of some of the large integrated companies is insufficient to meet the needs of their own refineries and certain of them buy more crude than they produce. To them the price of crude is a matter of high importance.

The cut in the price of Illinois crude two weeks ago intensified nervousness. Would buyers in other areas, plagued by unprofitable refinery operations and perhaps in competition with refiners operating on cheap Illinois crude, drop their prices too? While this question was worrying producers—for that matter the whole industry—the movement toward higher tank-wagon and retail prices got under way, cheering all divisions of the industry.

If any crude buyers were about to reduce their postings they delayed action, and as the higher prices spread to other areas belief grew that weakness in the crude market had been checked.

That the price structure of the whole oil industry has been strengthened by the developments of the past few weeks is evident.

Compact and Connally Law Nearing Final Action

WASHINGTON, D. C., June 19.—Congressional approval of the 2-year extension of the interstate oil compact has been recommended by President Roosevelt. In a brief message to Congress the president explained that the agreements between governors of principal oil-producing states to conserve oil and gas originally executed at Dallas on February 16, 1935, and renewed on May 10, 1937, will expire September 1, 1939, but that the governors of the states of Oklahoma, New Mexico, Kansas, Colorado, Texas, and Michigan, meeting April 5, 1939, have renewed the compact for an additional two years and have requested congressional approval of the extension. The legislation was recommended by secretary of state and the secretary of the interior, and the president expressed the hope that Congress will enact legislation giving its consent to the agreement.

The bill to extend the Connally hot oil law was approved by the House June 20 by a vote of 117 to 99. The Senate passed the bill to make the Connally law permanent, but the House committee on interstate and foreign commerce approved an extension for only 3 years on the ground that Texas has not enacted permanent conservation legislation. House passage of the bill in this form means that the measure must go to conference with the Senate and if the Senate refuses to accept this amendment there is a possibility that the bill will be deadlocked for some time. This possibility is rather remote, however, since the Connally Act expires on June 30.

The next hurdle facing conservation legislation is an appropriation for the Petroleum Conservation Division of the Department of the Interior for the purpose of enforcing the Connally law during the next fiscal year. When the regular appropriation bill for the Department of the Interior was enacted earlier this year it contained no funds for operating the Federal Tender Board and otherwise enforcing the Connally law after June 30, and the Conservation Division was given only $30,000 to use for other purposes.

New Counties Added to Kansas Production

By DAL DALRYMPLE

THIS is an era of discovery in Kansas. Field operations generally have been greatly curtailed and the total of 1939 completions is far under that of the corresponding period of 1938, but wildcat exploration continues unabated. Scarcely a week passes without several proven areas being extended, new pools being discovered, new counties being added to the productive list.

In recent weeks Norton and Phillips counties touching the Nebraska line and Sherman County on the Colorado line have been proven productive of oil or gas; a Bartlesville sand pool has been opened in Johnson County, on the south flank of the Forest City basin; the first Arbuckle lime production has been uncovered in Wilson County, far down in the old stripper district of southeastern Kansas; several extensions have been recorded in the great Hugoton gas field of southwestern Kansas; and discoveries and extensions of proven areas in counties along the Central Kansas uplift have been so numerous as to become almost routine.

Phillips County definitely was added to the productive counties of Kansas the past week when the Blue Stem Oil Co. No. 1 Donaldson, SE NE NE Section 25-5-18w, was completed for 24-hour potential of 827 bbl. of oil. The wildcat is 3½ miles northwest of nearest production in the Faubion pool in northern Rooks County, and is 28 miles south of the Nebraska line. Production was found in Lansing-Kansas City lime topped at 3,080 ft., total depth 3,164 ft. Seven-inch casing was set on top of the lime. The well flowed for nearly 4 hours following acid treatment, and during potential test the tubing capacity was taxed but the fluid level remained practically unchanged. The potential was based on a full 8-hour test, although pumping was suspended at the end of 6½ hours when the drive belt broke. Completion of the well had been delayed since late in May, because the rig caught fire and was destroyed soon after the pay zone had been penetrated and oil began rising in the hole, necessitating construction of a new rig.

Norton County, first county west of Phillips, was added to the productive areas of the state with the completion early this month of Power Oil Co. and Olson Oil Co. No. 1 Van Patten, C NE Section 26-4s-21w. It found dry Arbuckle lime at 3,610-65 ft., total depth, but plugged back, acidized Lansing-Kansas City lime pay at 3,474-95 ft. and swabbed 173 bbl. of 18.2-gravity oil in 15 hours, and subsequently was completed as a small pumper. The wildcat is 24 miles northwest of the Faubion pool, about 20 miles northwest of the Phillips County discovery and 22 miles south of the Nebraska line.

The Power company and associates have a block of approximately 7,500 acres around the Van Patten discovery, and have additional checkerboard leases of about 3,000 acres elsewhere in Norton and Phillips counties. The discovery well was the third drilled in the district by the Power company, previous wildcats in Section 34-6-19w, Rooks County, and Section 12-4-21w, Norton County, being failures. Norton County is on the Central Kansas uplift, which is responsible for the accumulation of oil in the pools of Rooks, Ellis, Russell, Rush, Ellsworth, Barton and Rice counties. The uplift extends northwestward across Norton County into Nebraska.

Graham County was proven productive in 1938 with the opening of the Morel pool, about 30 miles south of the Power company's Norton discovery. The Morel pool was extended ¾ mile west during the week ending March 9, 1939, at Continental Oil Co. No. 1 Drumm, SE SE NE Section 16-9-21w, a 1,043-bbl. producer in Arbuckle lime.

Sherman County in the far northwestern part of the state was added to the productive areas early this month with the completion of a small gas well.

Gas in Sherman

The discovery well, Goodland Independent Gas Co. No. 1 Keeran, NE cor. Section 30-8s-39w, is just south of the town of Goodland, 18 miles west of the Colorado boundary and 47 miles south of Nebraska. It was drilled with cable tools, finding Cretaceous pay at 1,000-1,307 ft., total depth, and produced 50,000 to 75,000 cu. ft. of gas daily, designed to supply the town of Goodland. The operators are drilling another wildcat a few miles east of the discovery in Section 27-8s-39w. The strike at No. 1 Keeran, although a small gas producer, is important because it is the first discovery of any kind in that isolated section of the state, being many miles from any other Kansas oil or gas area. Nearest producing area is the Wray gas field to the northwest in eastern Colorado.

The deeper formations beneath Sherman County have not yet been explored for oil or gas. In northwestern Kansas, geologists say, there is a possibility of production from Cretaceous and Permian rocks, in addition to the deeper formations which are productive to the eastward in counties along the Central Kansas uplift.

Johnson County in northeastern Kansas has produced oil and gas in small quantities for many years, but the recent Bartlesville sand discoveries in that county are of particular interest because of the location on the south flank of the Forest City basin, where extensive wildcat exploration in Missouri and Kansas is under way.

First of the new Johnson County discoveries to be completed was Sagamore Oil & Gas Co. No. 1 Metropolitan, SW SE SE Section 20-14-22, which was a 25-bbl. pumper in Bartlesville sand at 886-894 ft., total depth.

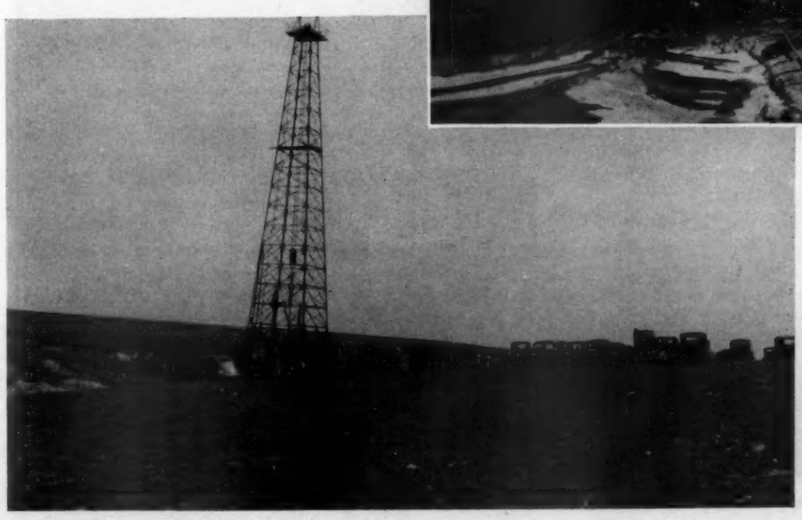
The other discovery was OK Supply Co. No. 1 Knabe, C NE NE Section 15-14-22, about 2½ miles northeast of the Sagamore strike. It found Squirrel sand productive at 707-720 ft., and Bartlesville sand productive at 830-850 ft., total depth. After a shot it pumped 42 bbl. of oil in 7½ hours, pumping off, and was completed for 30 bbl. of oil daily. Some observers believe the two Johnson County strikes may have opened a shoestring pool, similar to those of Anderson and Greenwood counties. A gas producer has been completed in the new area since completion of the discovery wells, and several tests have been started.

Arbuckle lime production has been found in several sectors in Elk and Chautauqua counties, in the old stripper districts of southeastern Kansas during the last 2 years, but it was not until May of this year that the first Arbuckle pool was opened in neighboring Wilson County.

This was at John W. Gard and others No. 2 Wilson, about 11 miles northwest of Fredonia. It found Arbuckle lime at 1,594 ft., total depth 1,604 ft., and pumped 75 bbl. of oil in the first 10 hours.

Right: Fire destroys rig at Blue Stem No. 1 Donaldson, wildcat discovery well in Phillips County

Below: Power & Olson No. 1 Van Patten opens first oil pool in Norton County



STATE CAPITALS

TEXAS

AN EIGHT-DAY PER MONTH shutdown of Texas oil fields for the coming 3 months was ordered by the Texas Railroad Commission at its statewide hearing held in Austin, Monday, June 19. With the hearing of Monday, June 12, resulting in the invalidation of the commission's method of prorating the East Texas field, the actual setting of allowables for the state's fields was postponed until the hearing on June 19. Chairman Lon A. Smith, the instigator of the 90-day proration order, had voiced his opinion at the hearing of 2 weeks ago when he announced that the order would be issued on Monday, June 19, and would cover a period of 3 months as was agreed at a commission conference. Not being a party to this agreement, Commissioner Sadler at once voiced the opinion that, "The only proration order which I will sign and support is one for 30 days. I will not place my name to one which attempts to prorate for 90 days. Such an order would place this state's oil market at the mercy of the major companies, and it would also lead to the nation's other oil-producing states grabbing markets which are rightfully ours and which Texas producers have supplied for years.

"In short, a 90-day order would mean outright confiscation of Texas production and markets."

It was Mr. Sadler who asserted some time ago that he believed Texas should be thrown wide open after August 1 unless certain other states cooperated to a greater extent in curbing production throughout the nation.

Commissioner Ernest O. Thompson, however, said he was "heartily and enthusiastically" for the 90-day order, so it was then determined that such an order would be issued.

"The industry has indicated that's what it wants—big and little operators," said Colonel Thompson.

"In no event," Colonel Thompson continued, "will the general East Texas order be changed. Such a change might make the pending Rowan & Nichols case moot, and the commissioners desire a final adjudication of the validity of their method of enforcement."

The new proration order will extend through the months of July, August and September; however, the fifth Saturday and Sunday in July and the fifth Saturday in September will be exempted from the closings. The commission said the basic production allowance next month, after deducting for the shutdowns, would be 1,362,158 bbl. daily, a slight increase over the current allowable. The July 1 allowable, not considering shutins, would be 1,789,270 bbl. daily, the commission stated, compared with 1,740,576 bbl. daily June 1 and 1,752,027 bbl. daily June 12.

Not considering shutdowns, daily allowances for June 1, June 12 and July 1 follow by districts, showing that the July 1 allowances exceed, in almost all cases, those of the two preceding periods:

Southwest Texas, 307,947, 307,611, and 307,674 bbl.; Gulf Coast, 271,828, 273,155, and 282,423 bbl.; East Central Texas, 111,639, 113,798, and 119,630 bbl.; East Texas, 522,632, 522,718, and 522,668 bbl.; West Central Texas, 65,846, 68,807, and 67,231 bbl.; West Texas, 248,465, 252,164, and 271,798 bbl.; North Texas, 122,457, 123,820, and 127,820 bbl.; Panhandle, 89,762, 89,954, and 90,026 bbl.

The Rodessa field was exempted from either Saturday or Sunday shutdowns due to its tri-state nature. Other fields were exempted because of their physical location. These include Eckert, Minerva, Rockdale, Somerset, Mission River, Charamousca, Deep Hammon, High Island, Hitchcock, Old Hull, New Hull, Lockridge, New Mykawa, Old Ocean, West Columbia, and New West Columbia in the Gulf Coast district. In the East Central Texas district, Corsicana, Currie, Mexia, Powell, Richland, Wortham, and Wortham Shallow were exempted. Big Lake, McMullen, and World were excluded in the West Central district. Eaves, Garza, Hendricks, Leck, Shearer, Taylor-Link, and Tobarg were omitted in the West Texas district.

The Rodessa allowable was set at 30,282 bbl. daily, an increase of 21 bbl. from June 11 and a decrease of 1,048 bbl. from May 1. The comparatively new K.M.A. field received a July 1 allowable of 34,424 bbl. daily; the Yates pool of Pecos County was increased 6,298 bbl. daily or to 35,000 bbl. daily; Cayuga field, East Central Texas, was increased 5,520 bbl. daily or to 17,320 bbl. daily.

OKLAHOMA

JUNE 29 HAS BEEN SET as the day on which Oklahoma crude oil purchasers will make known their requirements of crude oil in July to William J. Armstrong, chief conservation officer. The hearing will be in Oklahoma City.

State Capitol, Austin, Tex.

ILLINOIS

THREE OIL BILLS HAVE BEEN PASSED by the Illinois State Senate. S.B. 192, by Representative John A. Fribley, Pana, provides the Department of Mines and Minerals must first approve drilling of oil and gas wells in any working or abandoned coal mines; drillers must file log copies with the department and the state Geological Survey and for plugging of abandoned wells. S.B. 545, by Senator Louis Menges, East St. Louis, provides that when lands are owned by more than one person leases for oil and gas can be made if a majority of the owners approve them. S.B. 546, by Senator Menges, provides that oil purchases shall not be made from other wells until production of stripper wells has been exhausted.

FOUR HOUSE OF REPRESENTATIVES bills relative to the petroleum industry were lost last week. H.B. 1073, by Representative O. P. Tuttle, Harrisburg, was given the silent treatment, 53 to 37. It would have required all service stations and garages to hang signs showing the percentage of Illinois crude oil in its products. Having once previously failed to pass, the bill was declared lost by Speaker Hugh W. Cross, Jerseyville. Also tabled were No. 66, which established police at points of entry to assess state motor-oil tax against all incoming cars carrying more than 20 gal. of gasoline; No. 515, which required the state Department of Finance to establish three grades of gasoline and required containers to be labeled to show grade, state, and price per gallon; and No. 545, which placed a $1 tax on each acre of oil land in the state.

MICHIGAN

OPERATORS IN VAN BUREN COUNTY'S Bloomingdale field laid protests before the new oil advisory board at Lansing, Mich., on June 15, relative to a proposed proration rule for Michigan's petroleum industry.

Several producers asserted proration in Bloomingdale would force them to close their wells and would prevent investment in the pool.

Jacob A. Dalm, Kalamazoo, charged it would be a "change of rules in the middle of the game." He urged the rule be made effective only for future wells. William Shakespeare, also of Kalamazoo, said conservation efforts of his company had operated to increase production of nearby wells owned by others.

W. H. Shoemaker, Grosse Pointe, a Bloomingdale producer, said he could not continue to operate his wells under proration.

Results of voluntary proration were called good by K. H. Decousser, Lansing, who said four companies in the new Salem field have operated successfully on limited production by agreement. He predicted smaller companies, if held to proration, could operate profitably.

Walter McClanahan, Grand Rapids, recommended proration schedules be based on bottom-hole pressures for each well, rather than a 10-acre drilling unit. He favored 5 days for testing before making proration effective. Several producers opposed proration for the Kent County Walker field. Proration is the only phase of a general conservation program not yet put into effect under the state's new control law.

CALIFORNIA

EFFORTS OF THE CALIFORNIA DEPARTMENT of Natural Resources to force operators in the Montebello field of Los Angeles Basin to comply with the California gas conservation law are expected to be rewarded as the attorney general is drawing up a temporary injunction for signature of the presiding judge of the Superior Court in which the case has been heard. At a hearing last week the Division of Oil and Gas brought out the fact that in excess of 30,000,000 cu. ft. of gas was being blown to the air daily by operators in the west end of the Montebello field where deep zone exploitation had reached its peak. A large part of this waste is due to the fact that several operators have refused to conform with curtailment and are producing an excess of gas.

the OIL AND GAS JOURNAL

PRODUCING REFINING NATURAL GASOLINE PIPE LINE

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Untimely

A reduction of 3,255,000 bbl. in crude oil stocks last week is not a healthy sign when accompanied by the highest crude runs to stills in the history of the industry, 3,510,000 bbl.

Gasoline stocks have also to be taken into consideration to get the full picture. Measured by any reasonable calculation of demand during the summer and keeping in mind the necessity of having not more than 61,000,000 bbl. on hand September 30 when we enter the season of declining consumption, present stocks of 82,716,000 bbl. are dangerously high.

Excessive crude runs to stills are of particular importance just now, when an effort is being made to improve product prices. The increase in tank-wagon quotations announced by Sinclair Refining Co. has been accepted generally, although there are some important places where there has been hesitancy.

Tankcar prices have been adjusted in many areas where they were below normal and there is hope that the manufacturing division can return to profitable operation.

At this critical period unnecessary expansion of crude runs is a threat to the entire industry, because if product prices cannot be brought to a profitable level lower crude prices must result.

The peak in motor fuel stocks was established in March last year, 92,312,000 bbl. In March this year they touched 87,561,000 bbl. They are still over 82,000,000 bbl., a reduction of 5,000,000 bbl. But a year ago at this time they had been reduced over 8,000,000 bbl., a much faster rate of decline.

Refinery runs, which averaged 3,189,200 bbl. during April 1938, averaged 3,310,000 bbl. in April this year.

This year crude runs to stills jumped above 3,400,000 in the week of April 29, to 3,460,000 on May 20 and 3,510,000 bbl. on June 10.

What has there been, what is there in the picture to justify this extraordinary contrast in the two years' operations?

The Bureau of Mines' report for April, the latest available, found the domestic demand for motor fuel was only 2 per cent more than a year ago, while exports were 22 per cent off. This meant that total demand for gasoline was about the same as April of last year.

It is recognized the export market saved the day last year, but there is no indication it will do so this year.

These fundamental facts should be the basis for operating schedules, but apparently they are not. Possibly the oil business would be better off if it had not been accustomed to almost continual increases in demand for its principal product and if, like other industries, it had to encounter sharp fluctuations from year to year.

The result is too familiar and one prime cause of the industry's troubles. No sooner is it assumed that there will be an increase in demand of say 5 per cent than each unit immediately marks up its operating program 7 or 8 per cent. Something like this may explain, though it cannot excuse, a 3,510,000-bbl. daily average in crude runs compared to 3,129,000 bbl. a year ago.

Unless immediate corrective steps are taken this orgy of production may nullify all the effort being made to stabilize the business through improving product prices.

The crude oil situation, outside of Illinois, is not on an unsatisfactory basis. A careful survey, appearing elsewhere in this issue, shows that some 171,985 bbl., including Illinois, is moving under the highest posted price and this, in itself, is not so alarming.

The immediate danger is in the manufacturing division. The effect on crude stocks of reduced refinery runs would be the lesser evil. If the refined market is strengthened it will strengthen the crude position.

Judge McMillan's Decision Causes Wide Speculation

AUSTIN, Tex.—What effect the decision of federal Judge R. J. McMillan may have on Texas proration continued a matter of controversial speculation during the week. The Railroad Commission has not intimated what steps, if any, it may take, pending the appeal to the federal Circuit Court, which may not announce a decision perhaps for a year.

Rowan & Nichols, who had five wells on 24 acres, complained that under the commission's allocation of production they were not getting their reasonable share of oil. They did not attack the conservation statutes, nor directly challenge the top allowable, nor even the spacing rule No. 37. The court also made it clear it was not ruling on the validity of the order but on the method of its application.

Judge McMillan cited interesting figures on East Texas allocation: 451 wells, not capable of producing the marginal 20 bbl., produced 5,250 bbl.; 19,302 wells, whose 2.32 per cent of their hourly potential was less than 20 bbl., were allowed to produce 20 bbl., or 380,640 bbl.; while 6,325 wells, whose 2.32 per cent of hourly potential was more than 20 bbl., and whose hourly potential ranged from 865 to 1,100 bbl., produced 136,610 bbl., or a little over 20 bbl. each.

Rowan & Nichols contended that the allocation on a per-well basis was unjust to them and asked permits for additional wells, which was denied, although they were permitted to drill one more well, which they did not do.

Judge McMillan in his opinion said:

"The proration of this field on a per-well basis has been considered and condemned in a number of cases. It takes no account of the difference in the wells, of the richness or thickness of the sand, of the location upon the structure, of the porosity or permeability of the sand, of the estimated oil reserves, or of the acreage upon which the respective wells are situated. The worst property is raised to the level of the best and the best is lowered to the level of the worst. The disregard of acreage alone should be sufficient to condemn the plan. Here we have a case where a producer with a well to 5 acres can produce no more than his neighbor who adjoins him with a well on a fraction of an acre. Under the law in Texas, this oil in place belongs to the owner of the land or the leasehold. It is manifest that other things being equal, the party with the largest acreage has the most oil. There is nothing in this order however that protects him in that ownership.

"Respondents say that if small wells are not allowed to produce sufficiently to make them profitable they will be abandoned and there will be an economic loss. The number of these small wells is, in the opinion of the court, negligible. Furthermore, the evidence is not at all conclusive that any substantial reserves lying around these wells will be ultimately lost. Moreover, the evidence indicates that the production of these wells with the large amount of water that is brought up with the oil is even more harmful and wasteful to the field than the abandonment of those wells themselves would be.

"Furthermore, the court is not of the opinion that the evidence bears the respondents out in the contention that the present order is the only one possible. It is manifest from all of the evidence that the allowable has been fixed with an eye to the market as well as with an eye to the prevention of waste. Complainant does not attack the idea of a top allowable. That, however, does not preclude the court from considering the matter in contemplating the reasonableness of this entire plan of proration. Furthermore, it is evident from the record that it is not necessary to allow all of these wells 20 bbl. per producing day in order for them to operate. An allowable of 20 bbl. is an arbitrary figure. There was no evidence to show that they could not survive on less. There is no reason why many of these wells should not be cut back to a position more nearly approaching their productive capacity and reserve.

"The difficulty in which the commission finds itself grows largely out of its relaxation of its own spacing rules. The drilling of thousands of wells, unnecessary so far as the public interest is concerned, has required them to listen to the demands of those well owners at the expense of other operators better situated. No effort has apparently been made to require those parties producing upon too densely drilled acreage to pool their tracts.

"Respondents, in an effort to extenuate the inequality of their order, suggest the difficulty presented by the marginal well law. . . . This act relates to pumping wells and so far as East Texas is concerned forbids the artificial curtailment of production below 20 bbl. a day if such reduction would cause damage to the wells, or loss of ultimate recovery, or premature abandonment. Their position with regard to this matter is equivocal. There are about 450 of these pumpers in the field. If, as suggested, the law applies to them, then the order of August 29, 1938, made no effort to comply with the law, for the 2.32 per cent of hourly potentials would never give these wells 20 bbl. a day. Their interpretation and enforcement of the order does not do it, for the 2-day a week shutdown cuts a 20-bbl. a day allowable to about 14 bbl. All of these pumpers put together do not produce on an average over 5,500 bbl. a day. Any one of complainant's wells at half its potential open flow would produce more than that.

"Accordingly, it is apparent that the effect of the so-called statutory marginal wells is very slight so far as the general scheme of proration for that field is concerned. The statute offers no excuse for a flat 20-bbl. allowance to other wells running up to 860 bbl. per hour.

"If it be conceded that the statute is valid (which has been seriously questioned) and that these strictly marginal wells must be allowed 20 bbl. a day if they can make it, still that furnishes no excuse for confiscating the property of some other producer better situated. Pumping wells of this variety might appear in a field to such an extent as to exhaust the entire allowable, thereby leaving nothing for high potential flowing wells. No such absurd result was ever intended. This statute was obviously designed to keep these small pumpers from being slighted off, it being contemplated that the better wells would have a much higher allowable. If, however, this marginal minimum must be considered as a component element of a proration scheme, thereby unreasonably reducing the allowables of those other better wells, either the statute or the scheme must fail.

"The continual increase in drilling has operated to make this system of proration progressively more oppressive until the present administration of the order has in effect put the field upon a per-well basis. The potential factors of the order have practically become nil."

Comment upon the situation varied widely. Hines Baker, Humble Oil & Refining Co. attorney, said:

"I believe it is possible for the commission to write a reasonable order under the court decision. A top allowable should be placed on the East Texas field because we have seen it cannot produce a certain amount with safety, due to bottom-hole pressure decline. All wells, I think, should be given a minimum allowable."

He thought the commission might assign to marginal wells the quantity of oil they could produce and, after subtracting this quantity from the top allowable, prorate the balance among the other wells. A minimum of 8, 10, or 12 bbl., he suggested, could be fixed for all nonmarginal wells and this total subtracted from the proratable oil. The remainder of the proratable oil could then be assigned to the remaining wells, according to some formula which would take into consideration such factors as pressure, sand thickness, and acreage.

R. E. Hardwicke, of Fort Worth, said the fundamental problem rested on the basis of not taking the property of one man and giving it to another. The court said, he added, that "if you gave one man a marginal allowable that cuts into another man's production the marginal law is invalid."

Jack Blalock warned the commission to proceed cautiously in attempting to write an order conforming to the instructions of the court, asserting the ruling applied to but one lease and not the whole field.

Judge McMillan overruled a state motion for a stay of judgment pending appeal to the Circuit Court. He approved an allowable of 220 bbl. a day for the five Rowan & Nichols wells, compared to an allowable of 110 bbls. under the commission allocation. The commission will continue its present method of proration pending the appeal.

Texaco's First Producer Honored by Marker

HOUSTON, Tex., June 19.—Old-timers of Texas Co., as well as many of the newer officials and employes from various parts of the Gulf Coast, together with special guests, gathered at Sour Lake, Tex., Saturday, June 17, where a monument marking the site of the first producing oil well drilled or owned by the company was dedicated.

The formal dedication program included talks by officials and old-time employes, chief of which was by T. J. Donoghue, executive vice president. Mr. Donoghue, who is retiring from active duty July 15, is the oldest employe of the company in point of service, having been with the company since its inception. A barbecue picnic was held.

The well, No. 3 fee, was completed in January 1903, flowing initially 5,000 bbl. daily from a depth of 1,008 ft., and produced a total of 100,000 bbl. in its lifetime. Its completion led the company to exercise an option it held to purchase for $1,000,000 the famous Sour Lake Springs Hotel property, consisting of 815 acres, on which the well was located. This transaction was perhaps the outstanding event in the starting of Texas Co., which had been organized a few months earlier. Two other shallow tests, both dry, had been drilled previously by others on the property, leading to the designation of this well as No. 3. Approximately 25,000,000 bbl. of oil already have been produced from this property, and some of the first wells still are producing.

Wild Gasser in White County, Illinois; 10,000,000 cu. ft.

CENTRALIA, Ill., June 19.—Eason Oil Co. and others wildcat in Section 14-6s-9e, in White County, is reported to be blowing wild at the rate of 10,000,000 cu. ft. of gas per day from the Waltersburg or Tar Spring sand. The well had been drilled to the St. Louis formation, and plugged back to test the McClosky when the gas from the upper sand broke loose.

Mid-Continent Strike

Trial of Jack N. Hays, president of local of Oil Workers International Union, and 15 strikers, charged with directing a riot against Mid-Continent Petroleum Corp., began June 19 in District Court, Tulsa. At hearings conducted by Theo R. Bland, N.L.R.B. examiner, testimony of witnesses for the union is being presented.

THE MARKETS*

CRUDE OIL: *Naph-Sol Refining Co. raised its price of crude 10 cents in Kent County, Michigan. General market continue unsettled, though hope is expressed that an improving gasoline price structure will impart strength to the raw material.*

REFINERY: *While gasoline movement on contract is satisfactory, spot transactions lag. Prices pointing upward in most areas. Wax maintaining its firmness, with export demand rising. Natural gasoline holding. Kerosene and tractor fuels soft.*

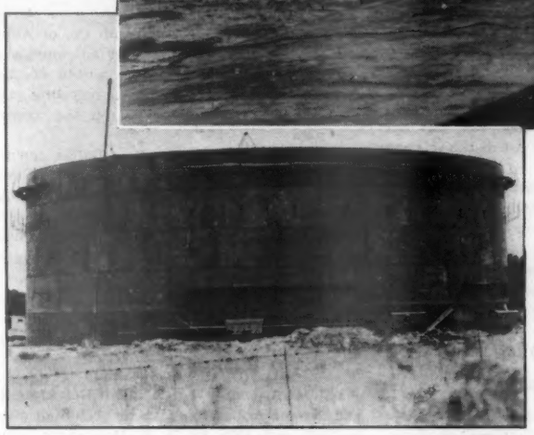
TANK-WAGON AND POSTED DEALER: *Sinclair's tank-wagon advance of a half-cent in 42 states generally followed by other companies. A small group of majors in the East have taken no action yet. Standard of Indiana continues its correction of subnormal prices.*

FINANCIAL: *Oil issues marked by much irregularity, most of them declining in sympathy with the rest of the market. Average of 30 representative stocks for week ending June 17: High, 25.72; low, 24.62; close, 25.53. Week ending June 10; High. 25.89; low, 24.84; close, 25.71.*

**Detailed information in market section.*

Illinois Oil Legislation Buried in Committee

By HARRY F. SIMONS



Top: Leveling up a derrick after skidding it to another location in the Salem field. Above: Steel for the tanks of Illinois being unloaded at Selmonville. Left: Second tank completed on the McBride Oil Co. tank farm near Robinett on the west side of the Salem field

SPRINGFIELD, Ill.—Any hope of getting conservation legislation through the sixty-first biennial session of the Illinois Legislature is fading rapidly with that body due to adjourn by July 1 and the possibility the lawmakers may decide to quit before that. The legislature recently voted to kill all bills not reported out of committee and this included house Bills 999 and 1000 which were favored by the advocates of regulation.

Proponents of these two bills had decided it was best to let them remain in committee rather than bring them out on the floor in face of almost certain defeat. Bill 1000 provides for a ratable taking law that would force all pipe lines operating in the state to take ratably between wells and is similar to the laws in other states.

Bill 999 is described by members of the Independent Producers and Royalty Owners Association as a complete conservation measure and would eliminate underground and economic waste. Under this bill, the governor of the state would appoint a three-man commission to supervise the oil industry. The commission would hold hearings to determine market demand, make rules for the drilling and casing and plugging of wells, filing of logs, and prevention of blowouts and water-coning of producing wells.

The commission would be further empowered to promulgate and enforce rules governing the prevention of water drowning of the producing sands by premature encroachment, the prevention of oil- and gas-well fires, and identification of wells, pipe lines and refineries. It could also regulate secondary recovery methods, prorate the production to eliminate waste, require tenders in the transportation of oil, and regulate spacing with the restriction that no unit be less than 10 acres for wells drilled to sand zones and 20 acres for wells drilled to lime zones. The bill prohibits the subdivision of small tracts to obtain permission for more wells on a lease.

Small tracts could be unitized under the act and a single well drilled; owners not wishing to unitize their properties could be restricted to their proportionate share of the regular spacing unit if their wells produced over 40 bbl. Voluntary agreements on pool operation would also be permissible.

The bill provides for the reasonable allocation of allowable production among the various pools and within the pools on a per well basis. The allocations may be adjusted to prevent unjust drainage of properties. A minimum restriction of 40 bbl. per well would be possible under the act.

A definition of illegal oil and a prohibition against handling and sale of such oil is included. Financing of the act would be through a tax on a barrelage basis.

The bills will be brought before the next regular session of the legislature which will convene 2 years hence. However, in recent years the legislature has been having special sessions and if one is called by Lt. Gov. John Stelle, the supporters of the measure will attempt to get action on it at that time. (The Illinois legislators are paid a flat fee of $5,000 for their term in office and get nothing additional for special sessions.)

The one drawback in introducing the bill in a special session is that it requires a two-thirds majority to attach the emergency clause to permit the law to go into effect immediately. With only a simple majority, any act passed does not become operative until a year from the day of closing the last regular session (July 1, 1940).

Due to the active campaign put on by the Independent Producers and Royalty Owners Association and the major companies, many believe passage of the bill at a special session is possible but are skeptical about attachment of the emergency clause. There is an active opposition group which carries considerable weight and it may be effective in combating the proration move.

Legislators Attentive to Situation

The legislators are beginning to realize the seriousness of the situation and are awakening to the fact that interest in the down-state area is increasing and may be an important factor in the next election. There was no mistaking the sympathies of the group of more than 600 which cheered the speech of J. Edgar Pew, vice president of Sun Oil Co., at the Illinois-Indiana Petroleum Association meeting several weeks ago. The fact that the "oil people" will have the right to vote in the next election and that they may be very active in the campaign is beginning to tell with the politicians.

The area hardest hit by lack of stabilization is the stripper area on the eastern side of the state. In addition to having their runs cut from over 10,000 bbl. at the first of the year to 6,715 bbl. daily at present, they have suffered price cuts from $1.35 in January 1937, to 95 cents per barrel. Millard H. Flood pointed out in his recent paper, "Present Status of the Southeastern Illinois Oil Fields," that a survey made by the Illinois-Indiana Petroleum Association showed the economic situation in that area as follows:

Price per bbl.	Profit per bbl.	Loss per bbl.
$1.35	$0.209	.....
1.25	.109	.....
1.15	.0089	.....
1.05	.....	$0.089
1.00	.....	.14
.95	.....	.19

Some of the strongest support for conservation legislation is coming from this area.

While conservationists and anticonservationists were in opposition, they did team up to put pressure on the legislature to block the "nuisance" bills affecting the oil business. More than 50 of these were introduced during the session and most of them died in committee.

Several bills received the support of oil men, including the mechanics lien law and a new plugging law. A bill introduced by John Parrish of Centralia is being amended and may pass.

The Illinois House recently killed four oil measures including H.B. 545 which would have placed a tax of $1 per acre on oil land in the state. The senate passed three bills last week, S.B. 192 regulating the drilling through mines, S.B. 545 allowing the majority of interested parties in a piece of property to make a lease and S.B. 546 requiring purchase of stripper well production before taking production from the flush areas.

Refinery Expansion

$1,000,000 Alkylation Unit to Be Added to Magnolia Refinery

BEAUMONT, Tex.—An alkylation process unit, capable of ultimate annual capacity of 1,000,000 bbl. of aviation gasoline, will be put under construction immediately at the Magnolia refinery here, it was announced by John W. Newton, vice president and general manager of Magnolia refineries.

The new plant will represent an expenditure in excess of $1,000,000, he said.

M. W. Kellogg Co., of New York, will build the alkylation plant proper, and C. F. Braun & Co., of Alhambra, Calif., will put up subsidiary equipment. Completion is expected by the end of the year.

The company has within the past 12 months initiated work on three new refining units, all using the catalytic method, in which field the company is a pioneer.

The new product from the alkylation plant will be shipped chiefly to points on the Atlantic seaboard, it was announced.

No Change in Cities Service Crude Runs at Ponca City

Refinery crude runs at the Ponca City refinery of the Cities Service Oil Co. will remain at 10,000 bbl. daily as an average during June. An estimate of 13,300 bbl. daily appeared in a compilation published in The Oil and Gas Journal on page 78 in the June 15 issue. Also, the plant capacity remains at 12,000 bbl. daily instead of the 14,000 bbl. shown in the summary.

Pana Refining Co. Builds New Plant

The Pana Refining Co. plant ¼ mile south of Pana, in southeast Christian County, and due north of the new Illinois oil field, will occupy 35 acres and be completed and ready for operation in 60 days, according to contractors. About 75 workers are now engaged in the construction.

The plant will be modern in every detail. The plant at the start will have a capacity of more than 1,000 bbl. per day.

Officers of the company are: President, Chase Savage; vice president and general manager, George H. Pfau, and auditor, H. C. Goettig.

Mid-Continent Area Boiler Inspectors Raise Standards

Boiler inspectors of Mid-Continent area met recently at Oklahoma City to discuss company rates and safety regulations with representatives of a number of insurance companies. As a result, it was decided to raise the standards of boiler inspection.

South Dakota Distillate Specifications Outlined

The Western Petroleum Refiners Association received the following communication from Guy G. Frary, state chemist of South Dakota, after asking for a clarification of the tractor fuel law which becomes operative on July 1:

"On July 1 and after, fuels having an initial boiling point not lower than 250° F. and a flashpoint not lower than 100° F. (Tag, closed cup) may be sold in South Dakota as distillates, tractor distillates, etc., but not under or by the name 'tractor fuel.' All distillate must be straw color or darker.

Tractor fuel must conform to the law of 1939, which specifies initial not lower than 200° F., 95 per cent point above 464° F., and endpoint not over 500° F. It also must be blue in color.

"If it is decided to make a regulation on the color of tractor fuel, the trade will be promptly advised."

Barnsdall Spending $250,000 to Enlarge Corpus Christi Refinery

A 10,000-bbl. topping plant with necessary facilities is to be added to the refinery of the Barnsdall Refining Corp. at Corpus Christi, Tex. The construction program also includes the building of 400,000 bbl. of storage. At present the plant is equipped with a 5,000-bbl. Dubbs cracking unit. When the topping plant is completed, the company plans to make additional products such as aviation gasoline, several grades of domestic burning oil, and Diesel oils. The investment involved in the enlargement of the plant will be about $250,000.

Merchandising lubricating products from a trailer has proved so successful for the Standard Oil Co. of Kentucky that it is now putting a second similar unit into service. The interior of the trailer is arranged to provide an attractive display of practically all of the merchandise marketed by the Standard Oil Co. Primarily, however, the exhibit within the trailer displays the equipment and materials used for lubrication. It is spacious, well lighted and completely equipped, providing Standard Oil with a very effective means of keeping in direct contact with its many dealers throughout the territories.

A salesman travels with the trailer conducting sales talks as the trailer moves through the southern states on an educational tour.

Natural Gasoline

New Recycling Plant Is Proposed for Grapeland, Tex.

CROCKETT, Tex.—The Grapeland gas-distillate area of north Houston County, where one recycling plant is in operation, may soon have another and larger plant if unitizing plans now at work materialize.

A. D. Adams, Grapeland, now is at work unitizing lease and royalty owners of 325 acres in the J. W. Parker, R. C. Farris, and Josiah Herod surveys. Most of the leases expire in 1940 and are held by Condor Petroleum Co., Stanolind, Phillips, Saltmount Oil Co., and Adams. Others holding acreage in the area include Sun Shell, and Cities Service.

The deal being offered is for George Abell, Midland operator, and Condor Petroleum Co. of Abilene to begin a well within 30 days after agreements are signed with a second well to follow within 60 days. If the wells turn out to be gassers, a recycling plant will be built, but if the wells make oil the agreement will not hold.

American Liberty Oil Co., Dallas, owner of the area's present recycling plant, now in operation 6 weeks, has been seeking to acquire more acreage in the area on farmouts. At the same time the major lease holders have held several conferences on the possibility of unitized development and the erection of a stripping unit.

Canadian Gasoline Survey Analyzes Ratings

OTTAWA, Ont.—The Canadian Department of Mines and Resources has issued a report on gasoline surveys in 1937 and 1938 by P. V. Rosewarne and H. McD. Chantler. Studies of gasoline sold in Canada have been made annually for 16 years, based on samples collected at widely scattered points, and tested in the Fuel Research Laboratories at Ottawa.

Some 60 samples were collected in August 1937 from nine cities, and the same number in July and August 1938. As these cities are widely separated and are distribution centers throughout the country, the samples may be accepted as representative. They included 25 different brands in 1937 and 24 in 1938.

Analyses show that the average gasoline sold in these years was of good quality, though in general the average was less volatile than in three previous years. The variation in volatility was less in 1937 than in any previous year, and that in 1938 still less, with a definite trend toward uniformity in the two higher groups embracing gasolines of high knock rating with octane numbers 75 and over and of medium knock rating between 65 and 74. In addition to these premium and regular groups respectively, there is a third grade below 65. In 1937 and 1938 the average knock rating of the premium group was 78 octane and the average of the regular group was 70, with the lower group averaging 60. From 1935 to 1938 ratings in the two higher groups have shown steady improvement.

The average Reid vapor pressure of 1937 samples was 8 and of 1938 samples 8.2 lb. All 1937 and all but two 1938 samples had Reid vapor pressures less than 10 lb.

A.P.I. gravities in 1937 varied from 73.3° to 57.2°. In 1938 the samples varied from 64.5° to 54.9°.

The general tendency is to color artificially the premium and regular groups and leave third-grade gasoline colorless. In 1937 the retail prices varied from 28.5 to 14.8 cents per imperial gallon and in 1938 from 26 to 16 cents. Provincial taxes in 1937 varied from 6 to 8 cents and in 1938 from 6 to 10 cents.

Pipe Line Activity

Welders on the new Illana Pipe Line Co. gasoline line from East St. Louis to East Chicago are tested before they are hired for work on the line. Left: A welder is using an acetylene torch to cut test bars from a sample electric weld. At the right, three welders with their hoods under their arms have just passed their tests and are ready for work. They are D. Worley, W. H. Ward, and Ralph Gunn.

Spokane Gas Pipe Line From Cut Bank Planned

DENVER, Colo., June 19.—A potential market for gas developed in the past year or more in North Cut Bank field is seen in the incorporation of Spokane Pipe Line Co., with a capital of 5,000 shares of $100 par value. The incorporators are A. B. Cobb, an operator in Cut Bank and Lance Creek, who last year brought in a 40,000,000-cu. ft. gasser in the northern extension; Frank Miller, who is associated with Mr. Cobb; E. B. Coolidge, head of Montana Gas Corp., which has some shut-in gas production on the Bow and Arrow dome in Toole County; and LaRue Smith, Montana representative of Texas Pacific Coal & Oil Co.

The company proposes to build a 300-mile line from northern Montana to Spokane, Wash., where there is estimated to be a market for 50,000,000 cu. ft. of gas a day. E. B. Coolidge states the company will pay 5 cents per thousand cubic feet for gas at the well from any individual with a commercial supply within reach of the line. A second gas well, Newell & Chandler No. 1 Hinstrager, was completed in North Cut Bank recently for 43,000,000 cu. ft. a day.

Survey for 500-Mile Line In British Columbia

CHATHAM, Ont.—In the northern foothills west of Peace River, Michael L. Benedum and Joe C. Trees of Pittsburgh, Pa., have taken over 161,000 acres of potential oil lands from Empire Crude Oil Co. and other interests. The deal involves all leases owned and controlled by the Empire company, together with acreage of Howey Oil Co. of Calgary, Guardian Oil Co. of Grande Prairie, Alberta, F. I. Batcheller of Edmonton and G. M. Bell of Calgary. In the negotiations, Benedum & Trees was represented by John F. Morrow, John F. Hardy, John O. Wicks, legal representative, William Jones, technician, and L. G. Huntley, geologist. Officers of Empire Crude Oil Co., which controlled the major portion of the acreage, are president, John I. Hill; vice president, R. G. Smith; treasurer, B. C. McMillan; directors, E. R. Lovewell and James R. Boyce; secretary, C. S. Blanchard.

Under the arrangement just concluded, Benedum & Trees will within 30 days commence deepening of Guardian Oil Co. No. 1, Section 7-80-12w5, now standing at 2,460 ft. Drilling equipment is being moved north, following 6 months of preliminary work. The deal involves a cash consideration and royalty together with an interest in a corporation to be formed if early drilling proves successful. Tentative plans and surveys have been made for a pipe line through the mountain passes to Bella Coola, on the British Columbia coast, a distance of approximately 500 miles.

The area was first tested in 1923 by Northwest Co., subsidiary of Imperial Oil, Ltd., drilling in LSD 15, Section 23-80-13w6, which encountered five gas shows between 1,673 and 2,732 ft., aggregating 10,000,000 cu. ft. a day. Drilling was discontinued at 3,057 ft. without reaching the potential oil horizon of the Dakota sands. The well gas capped, but broke loose 3 years ago and burned wide open for some weeks before being shut in.

The area adjoins the Peace River block of northern British Columbia, where a survey department under Dr. M. Y. Williams is working for the British Columbia provincial department, with another party to start work in July. The British Columbia Legislature has voted $60,000 for oil exploration, and the government has withdrawn the area for leasing and is planning to handle drilling itself.

Mesabi Line Hearings Extended to June 29

WASHINGTON, D. C.—The Federal Power Commission has extended to June 29 the time for filing briefs concerning applications by Kansas Pipe Line & Gas Co. and North Dakota Consumers Gas Co. for authorization to build natural-gas pipe lines to the Mesabi range.

British Capitalists Reported Considering Pipe Line

CALGARY, Alta.—As the result of the work of the Alberta oil mission in Great Britain, two British groups of capitalists will visit Turner Valley this summer with a view to interesting themselves in Alberta oil development.

Discussion of pipe line outlets for Alberta crude has led to a tentative decision that the first line undertaken will be planned to deliver Alberta crude to the head of the lakes, for marketing to eastern Canada.

The proposed line to Fort William will be 12-in., the cost being estimated around $32,000,000 with maximum pipe line charge of 30 cents per barrel. Storage capacity for 4,000,000 bbl. will be provided at Fort William, the plan being to move the crude from this point to refining plants during the navigation season.

Natural Gas News

Reserves for Saskatoon Must Be Established

REGINA, Sask.—The Local Government Board has refused authority to the city of Saskatoon to submit a natural-gas franchise bylaw to ratepayers of that city, pending further evidence as to the extent of the available gas reserve. Proven reserves were estimated at 43,500,000 feet per day; but as regulations of the Natural Resources Department limit withdrawals to 25 per cent of open flow, the amount was considered insufficient at present. Additional drilling will be undertaken.

Texas Court of Appeals Stands by Decision

AUSTIN, Tex.—The third Court of Civil Appeals reiterated its previous judgment that an order of the Railroad Commission reducing the gate rate of the Lone Star Gas Co. was just. Rehearing was denied.

In a memorandum it emphasized that all judges of the court concurred in the opinion by Judge Mallory B. Blair last April upholding the order and declaring the state had full power through the commission to force a rate reduction.

The United States Supreme Court already has reviewed the long litigation once and reversed the Court of Civil Appeals original judgment in part.

In the concurring memorandum the appellate court said its judgment interpreting the state law should be final except for the asserted denial of due process under the federal Constitution. It overruled the contention of the company the judgment conflicted with the Ben Avon and Stockyards decisions of the United States Supreme Court.

The court said judicial review of the commission's orders should be confined to questions of law, not of fact, in other words, to determine "whether the prescribed legal standard of probative evidence has been met."

Calculations on Reserves In Hugoton Questioned

WICHITA, Kans.—Technical testimony bearing on production conditions in the Hugoton gas field was given the Kansas Corporation Commission at its rehearing on proration regulations.

J. A. Mull, Wichita, geologist for Republic Gas Co., which has challenged the commission order, was examined by Robert Foulston, Wichita, attorney for Republic. Mull said that porosity in producing gas zones in the Hugoton field varies from 7 to 25 per cent, making it impossible to determine accurately gas reserves.

On cross examination by Innis Harris, Jr., attorney for Derby Oil Co. and other firms in the field, Mull explained it was engineering practice to determine the amount of gas in a pool by studying the drop in well pressures and the rate of withdrawals, but "'one could not estimate the amount of gas underlying a given tract."

In previous testimony C. C. Memsell of Amarillo, geologist for Columbia Fuel Corp., expressed belief gas production in Southwest Kansas, the Oklahoma Panhandle, and Northwest Texas came from a common source.

Salt Creek Unitization Plan Awaits Federal Approval

CASPER, Wo.—The final adoption of a unit plan for the operation of the Salt Creek field is being delayed pending approval by the secretary of the interior. It was hoped to put it into effect early in the current year, but the State of Wyoming, which owns Section 36, in the heart of the field, intervened, and a delay of a month or two is expected to result. The state has engaged outside counsel and an engineer has been checking the unit agreement. Under the enabling act by which Wyoming was granted statehood, it is prohibited from leasing its school lands for a period longer than 10 years. The present lease still has 5 years to run.

The agreement provides for the operation of all acreage in the unit in perpetuity or as long as oil or gas are produced in commercial quantities. Although the Wyoming legislature has passed an act authorizing the inclusion of state land in unitized areas, the parties to the pending unit agreement called the attention of state authorities to the provisions of the enabling act. The federal Government is understood to have offered no objections to the state going into the agreement under present conditions, which include an option for a 10-year renewal upon expiration of the present lease, but the state authorities want to become a party in perpetuity or not at all.

A bill has been introduced in congress aimed at the removal of the obstacles which have so far kept the state out of the plan. Government leases held in the field by operators who are not parties to the unitization agreement are subject to renewal upon customary terms upon expiration and are now subject to the automatic renewal provided for in the unitization plan.

Obituaries

E. E. PARKIN, 72, superintendent of production for John H. Tatlock, independent operator of Wichita, died June 17 near Ellinwood, Kan.

WALTER G. ALLENDER, 63, Los Angeles, died June 4 at Evansville, Ind. A native of Cambridge, Ohio, he entered the oil fields of Sisterville, W. Va., as a contract driller. He operated for a time from Zanesville, Ohio. He went to Kern River fields in 1911, then to Texas at Ranger, Desdemona, Hogtown, Breckenridge, and to Ardmore, Bartlesville, Seminole, Arkansas City, Augusta and Craig, Colo. From there he went to Laredo. On the way to Australia in 1927, he met a group preparing to drill for oil at Roma, Queensland, and became superintendent of operations. He returned to California, purchased four strings of tools, loaded them on a boat and spent two years in a futile effort 335 miles west of Brisbane.

W. B. CONOVER, 67, Lake Charles, La. oil man, died June 15 after a lengthy illness. He was well known throughout Southwest Louisiana oil circles. During the World War he served as a "dollar a year" man in charge of the conservation of fuel in the area.

E. L. LANDRETH, 53, in charge of the coastal operations of Landreth Production Corp., died June 15 at Corpus Christi as the result of a heart attack. He was a brother of E. A. Landreth of Fort Worth, president of Landreth Production Corp.

JOSEPH W. HARTMAN, 35, of Monroe, La., vice president of Imperial Oil & Gas Products Co., Pittsburgh, Pa., died in the Baptist Hospital in Alexandria, La., as a result of an automobile accident near Dry Prong, in Grant Parish.

Socony-Vacuum Reports To Its Employes

Socony-Vacuum Oil Co.'s payroll amounted to $90,263,000 in 1938, nearly half a million dollars greater than in 1937, according to the company's annual report to employes, just distributed. The total number of employes, domestic and foreign, amounted to 56,429 as compared with 56,144 in 1937. The increase in the payroll contrasts with a decline in the net profits which amounted to $40,106,917.

"The payroll, of course, does not represent all the payments made to employes," the report states. "This company was one of the first to develop a pension plan. Both the company and the employes now contribute to it. Excluding old age and unemployment taxes, the company paid out a total of $7,661,000 for present and future pensions and life insurance during the year. In addition, the company paid $3,018,249 for pensions and unemployment allowances under the federal and state social security acts."

Discussing the fact that Socony-Vacuum spent $86,021,000 in 1938 for capital expenditures, the report states, "From the employes' standpoint, capital expenditures are really expenditures for tools and equipment; they represent the cost of providing jobs. The company has supplied a total of $704,203,000 in capital to provide 56,429 jobs (domestic and foreign). This is an average of $12,479 per job.

"The petroleum industry is one of the most competitive in the country. There are about 20 companies which sell nationally known brands of gasoline, and there are a great many strong companies which sell other locally known brands. The largest marketer does not sell to consumers as much as 10 per cent of the total gasoline consumption. In the production of oil, there are several thousand companies, and in 1937 the largest producer accounted for only 6.3 per cent of the total production. In refining there are several hundred companies, and the largest refiner accounted for but 12.3 per cent of the total.

"No oil company, however large it may be, can control the price of the product. It is a peculiarity of the oil industry that the price of its chief product is posted on the public highway where everybody can see it, and the public naturally buys its gasoline where it is cheapest—provided they have confidence in the quality. Thus, prices cannot differ to any substantial degree in any given area without the higher-priced product losing customers.

"If you ever hear anybody talk about monopoly in the oil business, take him to almost any intersection of highways and let him look at the many competing gasoline pumps and the competitive price signs."

Nolo Contendere Pleas End Barnsdall Indictments

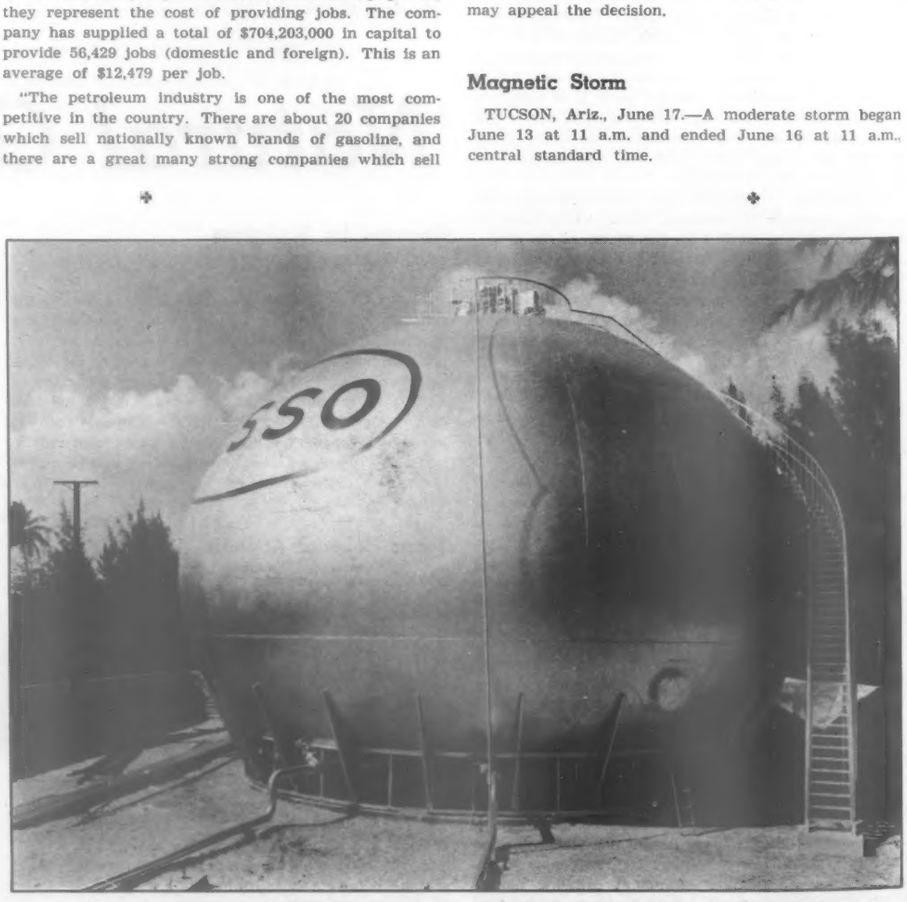
WASHINGTON, D. C., June 20.—The Department of Justice announced today that Barnsdall Refining Corp. and its president, Edwin B. Reeser, had entered pleas of nolo contendere in both Madison indictments, and the Government recommends acceptance and imposition of fines of $10,000 on each. Both were scheduled for retrial in the tankcar case and were not among those entering nolo pleas in jobber's margin case last year.

Price Fixing Upheld

VANCOUVER, B. C.—The British Columbia Court of Appeals has upheld the right of the British Columbia Coal and Petroleum Products Board to fix the price of gasoline, reversing a decision given by the trial court some months ago. The oil companies interested may appeal the decision.

Magnetic Storm

TUCSON, Ariz., June 17.—A moderate storm began June 13 at 11 a.m. and ended June 16 at 11 a.m., central standard time.



Pressure tanks reduce evaporation losses at modern bulk stations

No Oil Hearing By Mahoney Committee Until Fall

By HENRY D. RALPH

WASHINGTON, D. C., June 19.—The monopoly investigation of the oil industry will be postponed until fall, the Temporary National Economic Committee has announced. Originally scheduled for late in June or early in July, the hearings will not start until after Labor Day, and more probably around the first of October. The bulk of the material to be submitted to the committee, at least at the outset of the hearings, will be presented by the American Petroleum Institute, but the Institute has notified the committee that while it had hoped to be able to submit written statements early in June it has been found impossible to complete these before August 1. As the committee intends to spend approximately a month in studying these prepared statements and preparing questions for cross-examination before witnesses are called, and because of vacation schedules of both committee members and oil executives, it is assured the hearings will not start before the middle of September at the earliest.

There has been some thought in the industry that the oil hearings might be postponed indefinitely and perhaps never held, but this possibility has been countered by the statements of the T.N.E.C. chairman, Senator Joseph C. O'Mahoney, of Wyoming, that many other interests in addition to the A.P.I. are concerned in the investigation and that the committee already has assembled much material bearing on the oil industry. The chairman's announcement was as follows:

"At the request of Axtell J. Byles, president of the American Petroleum Institute, who has been cooperating with the Temporary National Economic Committee in obtaining the testimony of certain leaders of the oil industry, the presentation of the oil study is being postponed until the fall.

"These hearings were planned by the committee, as was announced on April 10, 1939, to afford industry an opportunity of presenting its own viewpoint with respect to current economic problems. The oil industry was selected as being one of major importance operating throughout the United States and for that reason ideally suited to develop a clear picture of the manner in which the economics system functions. It was planned that statements be filed on behalf of the industry in advance of the public hearings to enable the members of the committee to familiarize themselves thoroughly with the industry's point of view. Mr. Byles has now advised me that it has been found impossible for those leaders in the oil industry with whom he has been in contact to file their statements in sufficient time to permit the committee to open the hearings in July and he has made written request for an extension of time, agreeing to supply the statements on August 1.

"With this request the committee has complied, inasmuch as it desires to do everything in its power to cooperate with the industry and enable it to present its own story.

"It should be pointed out, however, that there are several factors in the oil industry and that considerable information with respect to many of its phases has already been submitted to the committee by other groups with possibly conflicting viewpoints."

Antitrust Appropriation Restricted

THE Senate passed the appropriation bill for the Department of Justice containing the three restrictions on the Antitrust Division recommended by the appropriation committee, and the bill is now in conference with the House where department officials are seeking to have restrictions removed or modified. The restrictions are that no regional offices of the Antitrust Division may be created, that all antitrust presentations and prosecutions must be made in cooperation with local federal district attorneys, and that employes of the Antitrust Division receiving salaries of $5,000 or more must be nominated by the president and confirmed by the Senate. This latter restriction, however, was modified somewhat by the Senate to make it plain that it applies only to attorneys employed in the future and will not affect the present staff of the Antitrust Division. The bill carries funds for employing approximately 100 additional attorneys in the division.

Excise Taxes Continued

CONTINUATION for another 2 years of the excise taxes affecting petroleum industry is provided in the new revenue bill passed by the House this week. All of the so-called nuisance taxes and special excises which were due to expire this summer, most of them on June 30, have been continued unchanged for another 2 years. Included in this list are federal taxes on gasoline, lubricating oils, transportation of oil by pipe line, importation of petroleum and petroleum products, automobiles and parts, tires and inner tubes, electrical energy, and telephone and telegraph messages. Together these taxes bring in excess of $500,000,000 annually, of which the gasoline tax provides nearly half. Also extended for another 2 years is the 3-cent letter postage rate. In recommending a continuation of these taxes, the House committee on ways and means stated:

"These temporary provisions are not regarded as ideal ingredients of our tax structure, but because their administration has been perfected, and because our economy has been adjusted to that, it is deemed inadvisable to sacrifice at this time the revenue they produce.

"Your committee is sensible of the general undesirability of these taxes but their extension for 2 years will not preclude action by the Congress to remove or revise them earlier if the condition of the revenue permits. If these temporary provisions were not extended at this time and the loss was required to be made up from corporation income taxes, the proposed rate of 18 per cent would have to be increased to over 28 per cent in order to secure the same amount of revenue."

While this language carries some slight hope that the gasoline and other nuisance taxes may be eliminated some time in the future, an even less tolerant attitude toward them is expressed by the Republican members of the committee in a separate report. The minority criticised the majority for combining desirable revision of corporation taxes with continuation of the excise taxes, declaring:

"The two matters covered by the bill could have been—and in our opinion should have been—considered as separate measures, as they are entirely unrelated. Moreover, the need for expeditious consideration applies only to the nuisance tax extension, not to the tax-relief features.

"The strategy of the Democratic majority in combining tax relief with the extension of the nuisance taxes is obvious. They are seeking to make the latter more palatable and more sure of enactment by tying it up with something that everyone favors. At the same time, they are hoping that this procedure will serve to distract attention from the fact that this is the fourth time the New Deal has proposed the extension of the nuisance taxes notwithstanding the assurance given the people that they would be allowed to expire in 1934 as provided in the original legislation. Also by including corporate tax relief as a rider on the nuisance-tax extension, which must be passed by June 30, they propose to offer the excuse that there is not time at present to give consideration to other tax-relief proposals equally as meritorious and as desirable as those provided in the bill.

"We of the Republican minority see no reason why the nuisance-tax extension should not be divorced from tax relief and considered separately, as it has been in the past, so that each matter could be considered on its own merit and so that the scope of the proposed tax relief (as to which there is no necessity for action by any particular date) might be broadened."

Import Taxes Unchanged

THE action of the House in extending for another 2 years without change the import taxes on petroleum and petroleum products which have been in effect since the revenue act of 1932, coincided with the publication of a special report by the Tariff Commission on the operation of the import taxes on petroleum, coal, lumber and copper. This showed that the petroleum taxes account for between 70 and 80 per cent of the revenue received by the Government for these four taxes. The petroleum taxes had been yielding between $7,000,000 and $8,000,000 per year since 1932, but during 1938 the yield fell to $6,500,000. The commission also reported that exports of crude petroleum have been in excess of imports in terms of quantity and very much in excess in terms of value, and that the value of finished products obtained from seven-tenths of a barrel of domestic crude is as high as that obtained from a full barrel of imported petroleum.

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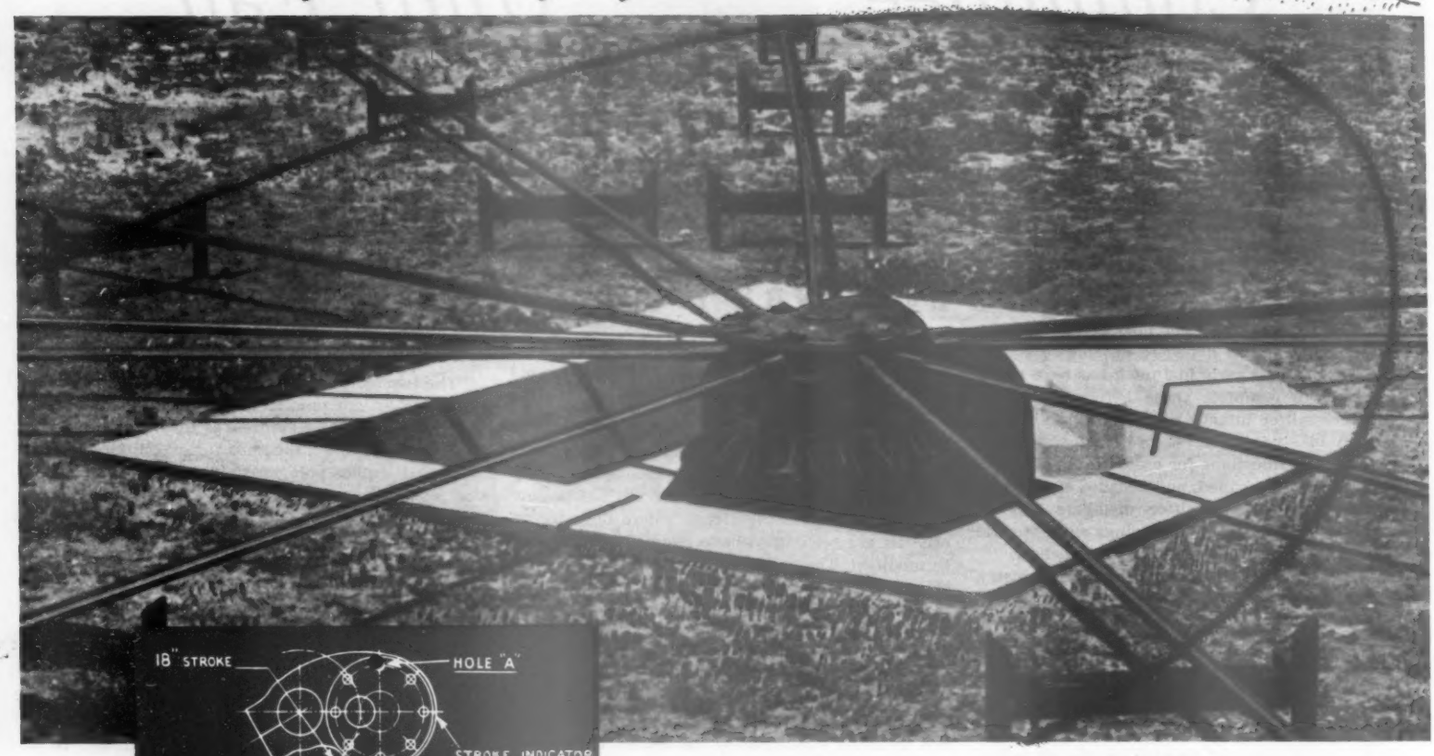

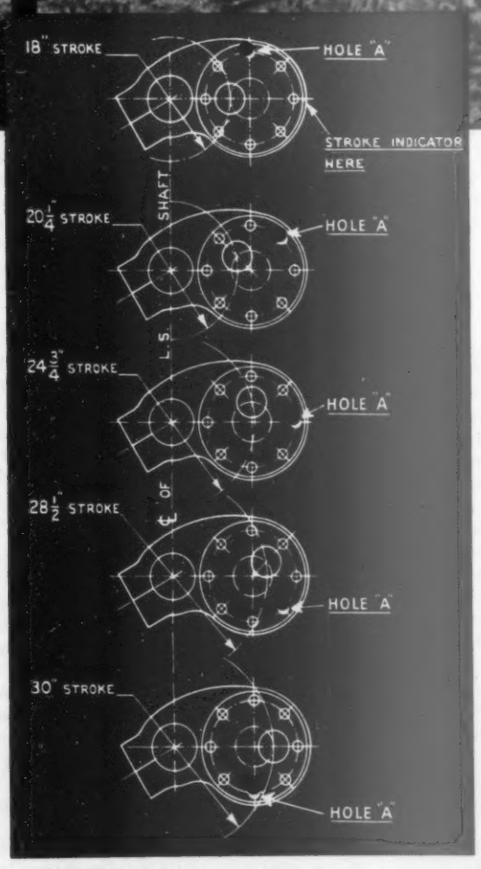

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INTERNATIONAL

Roosevelt Urges Consideration of Mexican Issue

President Roosevelt has taken a personal hand in urging speedy consideration of the oil expropriation negotiations with Mexico, according to reports arising in Washington last week. A conference between President Roosevelt and Dr. Francisco Castillo Najera, the Mexican ambassador, in the presence of Cordell Hull, secretary of state, gave rise to the reports. The conference lasted only a brief time, but considerable mystery was thrown around it by reason of the reticence of officials and their various statements when asked for information.

The Mexican ambassador said he had called on the president to express appreciation for the assistance of the United States officials when Mexico's ace aviator, Francisco Sarabia, crashed to his death in the Potomac recently.

From Mexico City, it was reported that President Cardenas may issue a statement shortly on the petroleum situation. A spokesman said that there was a "basic" agreement for settling the oil issue.

From other quarters it has been reported that negotiations between the expropriated oil companies and Mexico have "bogged down" and that the Mexican Government is practicing dilatory tactics.

Depth Record Test in Venezuela Is To Be Abandoned

A new drilling depth record has been established by a test scheduled for abandonment southeast of the Mene Grande field in western Venezuela. The deep wildcat test, 30 km. (about 19 miles) southeast of the Mene Grande producing field and southeast of Lake Maracaibo, was drilled to 10,302 ft. by Lago Petroleum Corp. After testing an interval from about 7,000 to 7,500 ft. resulting in a showing of gas and about 75 bbl. of sulfur water daily the hole was slated for abandonment. The deep test was drilled in the district of Betijoque in the State of Trujillo.

Peru Still Declines While Colombia Is Increasing Output

International Petroleum Co. declining production curve in Peru was accented last month when output dipped to 27,741 bbl. daily, or a total of 859,986 bbl. for the 31-day period. In April this year International's production in Peru averaged 31,144 bbl. daily and a year ago the daily output was 36,002 bbl. For the first 5 months this year International has produced 4,739,286 bbl. in Peru compared to accumulative of 5,575,276 bbl. for the same period in 1938.

Tropical Oil Co., International subsidiary in Colombia, increased its production again last month marking another continuation of an almost uninterrupted climb since the first of 1938. Tropical May production totaled 1,869,921 bbl., or a daily average of 60,320 bbl., compared to 59,668 bbl. in April and with 58,197 bbl. daily in the same month last year. From January 1 through May 31, 1939, Tropical has produced 8,757,844 bbl. in Colombia, compared to 8,464,045 bbl. for the same 5 months in 1938.

Two Tests in Britain Encounter Shallow Showings of Oil

Two tests in Great Britain have encountered shallow showings of oil. The showings do not give indication of important commercial development, but are significant in view of the almost complete lack of reward for a thorough exploratory campaign covering Great Britain and Scotland over the past 3 years.

D'Arcy Exploration Co. No. 1 Eakring, near Ollerton in Nottinghamshire, is credited with obtaining a hole full of gassy oil at the base of the coal measures in Upper Carboniferous around 1,800 ft. The second test in which a showing of oil was obtained was a D'Arcy core test known as No. G.2 at Downholland Moss near Formby in Lancashire. The shallow showing in the core-hole was encountered at 120 ft. and a total of 30 bbl. of oil, according to the Petroleum Times report, was produced before the well was shut in. The hole has been deepened to 158 ft.

Gulf Exploration Co. (Great Britain), Ltd., has completed the drilling of 11 core tests for geological information in the Cleveland Hills section in Yorkshire and location will be made in the near future for another deep exploratory test.

Anglo-American Oil Co. is testing two additional wells on the Midlothian anticline near Dalkeith in Scotland. The company's discovery well there is producing about 8 to 10 bbl. daily and No. 2 Midlothian, bottomed at 2,942 ft., is preparing to test a horizon from 692 to 720 ft. The company's No. 3 Midlothian has been drilled to 1,760 ft. where swabbing operations are now under way.

Venezuela Output In May Largest Since October, 1937

Estimated crude oil production from Venezuela climbed to a new recent peak last month averaging 565,827 bbl. daily, or a total of 17,540,639 bbl. for the 31 days. The daily average in April was 558,954 bbl., or 6,873 bbl. less than registered during the past month. The most recent approach to May production figure was in October 1937, when the daily average output was barely more than 560,000 bbl. In the division of production by fields all crude recovered by Lago Petroleum Corp. and to the account of Creole Petroleum Corp. in the Lake Maracaibo basin is grouped currently under Lagunillas, but almost half of the output of Lago comes from Tia Juana and La Rosa. A comparison of current figures with those of previous years would indicate an inflation of Lagunillas production and corresponding declines in Tia Juana and La Rosa. The close association of the Lake Maracaibo fields, however, makes for a rather arbitrary division in segregation of production by fields.

Last month's production exceeded that reported for the same period in 1938 by 55,561 bbl. daily which indicates the importance of new drilling in the Tia Juana, Bachaquero and Quiriquire fields, particularly. This year's drilling program in the Tarra field is also a contributing factor since production from that area last month of 546,963 bbl. is 135,416 bbl. greater than registered for May 1938.

Lago Petroleum Corp. maintained a slight lead over Venezuela Oil Concessions in the line-up of producing companies with remaining positions unchanged. Mene Grande Oil Co. is currently producing less oil by approximately 270,000 bbl. per month than at the same time in 1938, but this decline has been more than offset by increases on the part of Lago, V. O. C. and Standard of Venezuela as well as Caribbean Petroleum Co., Colon Development Co., and British Controlled Oilfields.

Details of May production follow:

VENEZUELA PRODUCTION

(By Fields)

	May 1939	May 1938	Daily average May 1939
Lagunillas*	9,505,930	6,301,734	306,643
La Rosa	957,889	2,753,856	30,900
Tia Juana	2,161,972	2,552,158	69,741
Quiriquire	2,258,282	2,168,967	72,848
Mene Grande	912,373	843,710	29,431
Tarra	546,963	411,547	17,644
Bachaquero	398,566	.....	12,857
Cumarebo	230,989	218,627	7,451
Temblador	188,309	193,163	6,075
Pedernales	157,920	162,369	5,094
Concepcion	84,268	79,185	2,718
El Mene	81,530	55,862	2,630
La Paz	55,648	77,088	1,795
Total	17,540,639	15,818,266	565,827
Total April 1939	16,768,633		
Daily average April 1939	558,954		
Daily average May 1938	510,266		

(By Companies)

Lago Petroleum Corp.	5,734,737	4,567,255	184,992
Venezuela Oil Concessions	5,299,028	4,764,625	170,936
Standard of Venezuela	2,960,261	2,901,480	95,492
Mene Grande Oil Co.	1,948,000	2,219,130	62,839
Caribbean Petroleum Co.	912,373	843,710	29,431
Colon Development Co.	546,963	411,547	17,644
British Controlled Oilfields	81,530	55,862	2,630
N. Venezuela Petroleum Co.	57,747	54,657	1,863
Total	17,540,639	15,818,266	565,827

*This figure includes all Lago and Creole production in the Lake Maracaibo basin.

Domestic Demand for Gasoline Rose in April But Exports Were Off

Crude-oil production in April, the Bureau of Mines reports, was the highest since October 1937, the daily average being 3,517,000 bbl., which was 72,000 bbl. more than in March and 93,600 bbl. higher than in April last year.

The increase in crude runs to stills, however, was larger and the accumulation of crude oil stocks was proportionally checked.

There was an increase in the yield of gasoline to 44.8 per cent compared to 44.4 per cent the previous month, but this was approximately balanced by a decrease in distillate yield.

Domestic consumption of motor fuel in April was handicapped by weather conditions and was only 2 per cent more than a year ago, or 43,977,000 bbl. Exports were 20 per cent below the previous April, totaling 3,663,000 bbl.

Motor fuel production, however, was increased 5 or 6 per cent above the previous year but, as the total demand was about the same, stocks increased about 1,200,000 bbl. in April this year against a decline of 1,700,000 bbl. in April 1938. Most of the gain was in natural gasoline stocks but finished stocks increased 434,000 bbl. to 81,623,000 bbl. on April 30.

Demand for fuels, coke and still gas was above last year, but stocks of residual fuel oil, which decreased in March, increased in April because of increased output and seasonal drop in demand. Stocks of fuel oil at terminals declined in April.

United States Supply and Demand—Crude Oil (Bbl.)

April 1939

4 MONTHS—	TOTAL SUPPLY	TOTAL DEMAND	EXCESS DEMAND	EXCESS PCT.	DOMESTIC PRODUCTION	IMPORTS	INDICATED DOMESTIC DEMAND‡	EXPORTS	STOCKS REFINABLE CRUDE APRIL 30
1939	416,271,000	412,535,000	*3,736,000	*0.9	408,243,000	8,028,000	392,060,000	20,475,000	‖278,565,000
Daily average	3,469,000	3,438,000	.....	...	3,402,000	67,000	3,267,000	171,000	.....
1938	418,269,000	413,681,000	*4,588,000	*1.1	409,895,000	8,374,000	388,726,000	24,955,000	307,297,000
Daily average	3,486,000	3,447,000	.....	...	3,416,000	70,000	3,239,000	208,000	.....
Increase, 1939	†1,998,000	†1,146,000	.....	..	†1,652,000	†346,000	3,334,000	†4,480,000	†28,732,000
	†0.5%	†0.3%	.....	...	†0.4%	†4.1%	0.9%	†17.9%	†9.4%

Supply and Demand—Refinery Products—Motor Fuel (Bbl.)

4 MONTHS—	TOTAL SUPPLY	TOTAL DEMAND	EXCESS DEMAND	EXCESS PCT.	DOMESTIC PRODUCTION	IMPORTS	DOMESTIC DEMAND‡	EXPORTS	CRUDE APRIL 30§
1939	189,733,000	173,405,000	*16,328,000	*9.4	189,733,000	.....	158,859,000	14,546,000	87,107,000
Daily average	1,581,000	1,445,000	.....	...	1,581,000	.....	1,324,000	121,000	.....
1938	180,820,000	166,607,000	*14,213,000	*8.5	180,820,000	.....	151,550,000	15,057,000	88,863,000
Daily average	1,507,000	1,388,000	.....	...	1,507,000	.....	1,263,000	125,000	.....
Increase, 1939	8,913,000	6,798,000	.....	...	8,913,000	.....	7,309,000	†511,000	†1,756,000
	4.9%	4.1%	.....	...	4.9%	.....	4.8%	†3.4%	†.02%
Kerosene									
1939	22,589,000	24,725,000	2,136,000	8.6	22,589,000	.....	22,124,000	2,601,000	5,663,000
1938	22,048,000	22,737,000	689,000	3.0	22,045,000	.....	19,860,000	2,877,000	6,394,000
Increase, 1939	541,000	1,988,000	.....	...	541,000	.....	2,264,000	†276,000	†731,000
	2.5%	8.7%	.....	...	2.5%	.....	11.4%	†9.6%	†11.4%
Gas Oil and Residual Fuel Oil									
1939	155,603,000	173,079,000	17,476,000	10.1	150,838,000	4,765,000	158,165,000	14,914,000	111,469,000
1938	157,092,000	154,705,000	*2,387,000	*1.5	150,122,000	6,970,000	140,026,000	14,679,000	110,865,000
Increase, 1939	†1,489,000	18,374,000	.....	...	716,000	†2,205,000	18,139,000	235,000	604,000
	†0.9%	11.9%	.....	...	0.5%	†31.8%	13.0%	1.5%	0.5%
Gas Oil and Distillate Fuels									
1939	53,842,000	60,865,000	7,023,000	11.5	53,671,000	171,000	51,790,000	9,075,000	21,058,000
1938	49,891,000	52,485,000	2,594,000	4.9	49,891,000	.....	42,580,000	9,905,000	19,972,000
Increase, 1939	3,951,000	8,380,000	.....	...	3,780,000	.....	9,210,000	†830,000	1,086,000
	7.9%	16.0%	.....	...	7.6%	.....	21.6%	†8.3%	5.4%
Residual Fuel Oils									
1939	101,761,000	112,214,000	10,453,000	9.3	97,167,000	4,594,000	106,375,000	5,839,000	90,411,000
1938	107,201,000	102,220,000	*4,981,000	*4.9	100,231,000	6,970,000	97,446,000	4,774,000	90,893,000
Increase, 1939	†5,440,000	9,994,000	.....	...	†3,064,000	†2,376,000	8,929,000	1,065,000	†482,000
	†10.9%	9.8%	.....	...	†3.0%	†34.1%	9.2%	22.3%	†0.5%
Lubricating Oils									
1939	10,385,000	10,195,000	*190,000	*1.9	10,385,000	.....	7,040,000	3,155,000	7,886,000
1938	10,480,000	9,703,000	*777,000	*8.0	10,480,000	.....	6,568,000	3,135,000	8,290,000
Increase, 1939	†95,000	492,000	.....	...	†95,000	.....	472,000	20,000	†404,000
	†0.9%	5.1%	.....	...	†0.9%	.....	7.2%	0.6%	†4.9%
Petroleum Wax (Lb.)									
1939	156,840,000	166,879,000	10,039,000	6.0	148,400,000	8,440,000	82,900,000	83,979,000	119,301,000
1938	158,005,000	158,371,000	366,000	0.2	147,840,000	10,165,000	108,889,000	49,482,000	144,626,000
Increase, 1939	†1,165,000	8,508,000	.....	...	560,000	†1,725,000	†25,989,000	34,497,000	†25,325,000
	†0.7%	5.3%	.....	...	0.4%	†17.0%	†24.0%	69.7%	†17.5%

*Excess supply. †Decrease. ‡Crude oil only. §Includes finished and unfinished refinery gasoline and natural gasolines. ‖Gas oil and fuel oil equals gas oil and distillate fuels plus residual fuel oils. Note: Total supply equals domestic production plus imports. Total demand equals domestic demand plus exports. Data on demand for refined products are based on refinery shipments. ‖Does not include 15,198,000 bbl. of heavy oils in California. Comparable figures for April 30, 1938, 16,887,000 bbl.

Crude Oil Run to Stills and Total All Oils (Bbl.)

APRIL—	TOTAL IMPORTS§	TOTAL EXPORTS§	TOTAL CRUDE TO STILLS	PER CENT YIELD GASOLINE‡	NATURAL GASOLINE PRODUCTION	TOTAL SUPPLY ALL OILS*	TOTAL DEMAND ALL OILS*	STOCKS ALL OILS APRIL 30*
1939	15,576,000	56,375,000	385,631,000	44.8	5,484,000	441,003,000	436,734,000	558,739,000
Daily average	130,000	470,000	3,213,000	...	46,000	3,675,000	3,639,000	.....
1938	16,861,000	61,179,000	377,639,000	43.3	6,179,000	444,028,000	415,894,000	592,120,000
Daily average	141,000	510,000	3,147,000	...	51,000	3,700,000	3,466,000	.....
Increase, 1939	†1,285,000	†4,804,000	7,992,000	...	†895,000	†3,025,000	20,840,000	†33,381,000
	†7.6%	†7.8%	2.1%	...	†11.2%	†0.7%	5.0%	†5.6%

*Total all oils includes crude and refined products, natural gasoline and benzol. Stocks April 30, 1939, represented 154 days' supply which compared to 171 days on the same date in 1938. †Decrease. ‡Does not include natural gasoline blended at refineries. §Includes crude oil and refinery products. In case of imports includes receipts in bond and for domestic use. All data based on Bureau of Mines reports.

More and higher

MAYBE you think that octane standards for motor gasoline are too high, higher than they need to be

And perhaps they are

But try to sell low octane gasoline on today's market—and get the price for it

Dubbscracking gives you the biggest yield of high octane gasoline from any charging stock

U O P catalytic polymerization makes still more gasoline of still higher octane rating from your cracked gas

More gasoline and better gasoline from every barrel of crude you run—that's what counts

U O P processes put you in the money

Universal Oil Products Co
Chicago, Illinois

Dubbs Cracking Process
Owner and Licensor

Programs and Meetings

American Society for Testing Materials
Forty-second Annual Meeting

The provisional program for the forty-second annual meeting of the American Society for Testing Materials at Chalfonte-Haddon Hall, Atlantic City, June 26 to 30, schedules the annual address by the president, T. G. Delbridge, June 27, at 10:30 a.m.

The report of Committee E-9 on research will be made by T. S. Fuller, chairman.

On June 28, 1:30 p.m., the report of Committee D-2 on petroleum products and lubricants will be made by T. A. Boyd, chairman. New methods of test for ramsbottom carbon residue of petroleum products, a doctor test for motor fuels, naphthas and kerosenes, and tests for gum stability and tetraethyl lead in gasoline are presented for publication as tentative. The test for acid heat of gasoline and knock characteristics of motor fuels, with revisions, are recommended for adoption as standard. Revisions are also presented in the tentative method of test for saponification number, vapor pressure, and kinematic viscosity, and the adoption of tentative revisions in three standards are recommended.

The report also includes the tests for thermal value of fuel oil and for sulfur in petroleum oils by bomb method which have been rewritten and extensively changed in form and arrangement. A consolidation of the two present standard methods of test for color by A.S.T.M. Union colorimeter is presented. The withdrawal of the test for expressible oil and moisture in paraffin waxes is recommended.

Appended to the report is a summary of the studies carried on in the development of the new method for gum stability of gasoline and a report of the work undertaken in preparing the test for tetraethyl lead in gasoline.

The report of Committee D-3 on gaseous fuels, A. C. Fieldner, chairman, discusses considerations given by the committee to the standardization of test methods for gaseous fuels. It includes a resume of activities of the seven subcommittees on collection and on measurement of gaseous samples, on calorific value of gaseous fuels, on specific gravity and density, on determination of impurities of gaseous fuels, on water vapor content, and on analysis of gaseous fuels.

Section Committee Z-11 on petroleum products and lubricants, T. A. Boyd, chairman, will report on standards being recommended for submission to American Standards Association for approval as American standard.

Oil-World Exposition Date
To Be April 11 to 18, 1942

At a meeting of the board of directors of the Oil-World Exposition, Inc., in Houston, Tex., the date for the next oil show in Houston was announced for April 11 to 18, 1942. Immediate action in selling space for the 1942 show will be taken and present exhibitors will be given an option on the space they occupied in this year's exposition. This option will expire January 1, 1940, and all space not signed on definite contract at that time will be sold to applicants for the space in accordance with the date of application. Definite action was taken after the city of Houston offered to provide additional grounds, buildings and other facilities which will be necessary to take care of increased demands for the next exposition.

A detailed report on the achievements of the 1939 Oil-World Exposition held at Houston in April has been made to the exhibitors by Ed G. Lenzner, general manager of the exposition. This being an industry-owned, nonprofit organization, complete data on the conduct of the show is sent upon its completion to all companies and members participating. The total gross income from sale of space, tickets, admissions and miscellaneous sources amounted to $99,871.65 for the 1939 show. As soon as all expenses have been taken care of, the executive committee, upon authorization voted by the directors, will make refunds to the exhibitors.

"Total attendance at the 1939 exposition was 179,034, of which," Mr. Lenzner says, "only about 12,000 was general public attendance; the balance consisted of men from the petroleum industry. Admission of exhibitors, foreign visitors, directors and members was by badges and not included in the tickets collected at the gate. Of these badges there were approximately 5,000 issued to exhibitors, 100 to directors, 300 to foreign visitors, 400 to members and a number for special purposes. More than 300 foreign visitors were reported, and since the export business is one of the most important to American manufacturers at the present time, the Oil-World Exposition is gratified in having been able to bring such a large number of important men from foreign countries to the oil show, where they could be contacted in person by the exhibitors.

"Several companies reported the sale of complete drilling rigs and a number of exhibitors reported sale of all types of large and small equipment. The majority of the exhibitors stated that they made contacts that resulted not only in sales before the show was over, but also can be followed up for immediate and future sales."

Although the desirability of having exposition-owned grounds and buildings for future oil shows in Houston was recognized, the directors voted that they would not purchase any buildings or grounds at this time.

Tulsa Geological Society
Election of Officers

The new officers of the Tulsa Geological Society elected at the annual meeting are as follows: President, R. Clare Coffin, Stanolind Oil & Gas Co.; first vice president, Sherwood Buckstaff, Shell Oil Co.; second vice president, Lee C. Lemar, Carter Oil Co.; secretary and treasurer, Louis H. Lukert, Texas Co.; editor, Dr. A. N. Murray, Tulsa University; associate editor, Maurice Teis, Homestake companies.

Council—Robert H. Wood, Sam Riter, Russell Tarr, Merritt H. Brown.

CALENDAR

June

AMERICAN SOCIETY FOR TESTING MATERIALS, forty-second annual meeting, Chalfonte Haddon Hall, Atlantic City, N. J., June 26-30.

THIRTEENTH INTERNATIONAL CONGRESS OF CARBIDE, ACETYLENE, OXYACETYLENE WELDING AND ALLIED INDUSTRIES, Munich, Germany, June 25-July 1.

July

AMERICAN SOCIETY OF MECHANICAL ENGINEERS, San Francisco, Calif. July 10-15.

AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS, regional meeting, San Francisco, Calif., July 10-17.

INTERSTATE OIL COMPACT COMMISSION, Santa Fe, N. M. July 19-20.

AMERICAN SOCIETY FOR TESTING MATERIALS, San Francisco, Calif. July 23-30.

August

MICHIGAN OIL AND GAS EXPOSITION, Mount Pleasant, Mich., August 1-6.

KANSAS GEOLOGICAL SOCIETY thirteenth annual field conference, jointly with Illinois and Missouri State Surveys and Illinois Geological Society, in southern Illinois and eastern Missouri—August 30-September 3.

September

AMERICAN SOCIETY OF MECHANICAL ENGINEERS, New York, September 4-8.

OIL WORKERS INTERNATIONAL UNION, Hammond, Ind., September 5.

AMERICAN CHEMICAL SOCIETY, Boston, Mass., September 11-15.

MONTANA NATIONAL BITUMINOUS CONFERENCE, Sun Valley, Idaho. Sept. 11-14.

NATIONAL PETROLEUM ASSOCIATION, 37th annual meeting, Hotel Traymore, Atlantic City, N. J., September 13-15.

October

AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS, Petroleum Division, Galveston, Tex., Oct. 4-6.

TEXAS MID-CONTINENT OIL AND GAS ASSOCIATION meeting, Houston, Oct. 5-7.

AMERICAN GAS ASSOCIATION, annual convention, New York, October 9-10.

FORTIETH ANNUAL NATIONAL AUTOMOBILE SHOW, Grand Central Palace, New York. Oct. 16.

NATIONAL TAX CONFERENCE, Palace Hotel, San Francisco, Calif. Oct. 16.

NATIONAL SAFETY CONGRESS AND EXPOSITION, Chalfonte Haddon Hall, Atlantic City, N. J., October 16-20.

INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA, tenth annual meeting, Fort Worth, Tex., October 18-20.

AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS, Petroleum Division, Los Angeles, Calif., October 19-20.

November

NATIONAL MOTOR TRUCK SHOW, Navy Pier, Chicago. Nov. 8-16.

AMERICAN PETROLEUM INSTITUTE, twentieth annual meeting, Stevens Hotel, Chicago, November 13-17.

AMERICAN INSTITUTE OF CHEMICAL ENGINEERS, Providence, R. I., November 15-17.

December

WEST CENTRAL TEXAS OIL AND GAS ASSOCIATION, Abilene, Tex., Dec.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS, Philadelphia, Pa. Dec. 4-7.

May 1940

INTERNATIONAL PETROLEUM EXPOSITION. Tulsa, Okla., May 18-25.

June

THIRD WORLD PETROLEUM CONGRESS, Berlin, Germany. June 9-15.

ENGINEERING and OPERATING

In This Issue

JUNE 22, 1939

APPLICATIONS OF THERMAL POLYMERIZATION

By Humble Oil & Refining Co., Phillips Petroleum Co., and the W. M. Kellogg Co. ..... *Page 52*

A review of the actual results of plants employing thermal polymerization for processing mixtures of butane and propane, with a discussion of the possibility of adapting the process to natural gasoline plants. Two existing units are described as examples of installations.

ENORMOUS ASSEMBLY USED ON GULF COAST RIG

By Neil Williams ..... *Page 54*

On a deep test being drilled on Louisiana's Jefferson Island, a huge rig is being used which has created considerable interest as one of the largest and most complete assemblies of drilling equipment on the Gulf Coast. Operations here strengthen the belief that all salt domes will be found productive.

U-GAGES SAFEGUARD PIPE LINE TANKS

By Paul Reed ..... *Page 60*

A large pipe line company has developed a U-gage to a point where the latter has become a highly important safety feature. The need for a simple means of observing excessive differential pressures which might cause tank failures has long been recognized; it is felt that this need has been solved with the equipment described.

NATURAL GASOLINE AND POLY PLANT CHART

By W. L. Nelson ..... *Page 63*

By means of a simple chart, one can determine the composition of a gas or liquid existing together under equilibrium conditions. The chart materially reduces the time necessary to make the computation.

OPERATING IDEAS ..... *Page 58*

QUESTIONS ON TECHNOLOGY—*By C. K. Francis, Ph.D.* ..... *Page 74*

Applications of Thermal Polymerization

BY HUMBLE OIL & REFINING CO., PHILLIPS PETROLEUM CO. and the M. W. KELLOGG CO.*

It is the purpose of this paper to review the actual results of some of the plants employing thermal polymerization for processing mixtures of butane and propane, and, further, to indicate from this experience the possibility of economic use of this process by natural gasoline operators. No attempt will be made to include all existing installations or to give completely detailed technical descriptions of operations, equipment and design considerations since this has been adequately presented in earlier publications. Comparisons of thermal polymerization and other processing methods, such as catalytic operations, are not within the scope of this paper. Therefore, consideration will be limited to a comprehensive discussion of thermal polymerization and of operating plants with the particular object of developing the adaptability of the process to natural gasoline plants.

Since in field locations only saturated butanes and propanes are available as feed materials, special attention will be given to these and discussion of the use of unsaturated feed stocks will be included only to the extent that such use illustrates applicability of the process for casinghead conditions. In some cases this will appear by reason of size of plant and in other cases on account of design features employed.

Relative usefulness of butane and of propane as feed materials for this type of unit will be considered since in different locations varying proportions of these would doubtless be available. The paper will include some discussion as to the effect of changing percentages of butane and propane with respect to equipment required and operating costs, particularly with reference to units of small capacity.

In order to present a comprehensive view of the various important elements of the processes, simplified flow sheets of several plants will be discussed comparatively. It is hoped by this means to show the essential features of thermal polymerization and to indicate modifications in plant design which may prove desirable because of local conditions such as values of feed stocks and of products, as well as to indicate the most suitable application with respect to existing plant equipment.

As examples of existing installations, brief descriptions of two operating units will be included. These will be:

1. Humble refinery, Baytown, Tex. Normal capacity 8,000 bbl. per day liquid butane feed. This is the largest thermal polymerization plant built to date and the unit processes almost entirely saturated butanes.

2. Phillips Petroleum Co., Borger, Tex. One unit of a capacity of 2,500 bbl. per day. This indicates various modifications in flow from that used at Humble and illustrates intermediate capacity. The unit operates chiefly on saturated feed stocks.

Possibly the most pertinent portion of this paper with respect to the natural gasoline industry will be the presentation of suggested designs of plant for use by casinghead plant operators. It will be attempted throughout this discussion to visualize the thermal polymerization unit installed as an integral part of the natural gasoline plant, and therefore to utilize as far as possible all existing plant facilities. In this connection, consideration will be given to the following factors:

(*a*) Feed stocks.
(*b*) Size of plant.
(*c*) Product disposition.
(*d*) Utilities required.
(*e*) Recycle liquid recovery.
(*f*) Economics.

While all the contributing companies have shared in the preparation of this entire paper, generally speaking, the following subdivision of information has been followed:

1. Humble Oil & Refining Co. has furnished all data and information with respect to its Baytown plant.

2. The Phillips Petroleum Co. has contributed its experience at Borger.

3. The M. W. Kellogg Co. has correlated all the above information, prepared the paper, and has supplied particularly that section having to do with the possible application of this process to natural gasoline plants.

General Discussion of Process

In the general flow sheet, Chart 1, are given in simplified fashion all the essential elements of the thermal polymerization unit on the basis that the fresh feed is available as liquid. In a casinghead plant, it is believed that liquid feed may usually be made available as stabilizer overhead. If required by local conditions, feed may be vapor and be compressed into the poly plant. Referring again to Chart 1, the fresh feed is pumped to the furnace feed stripping unit. At this point it combines with the recycle material. This combined stream passes through the furnace charge pump, through a heat economizer, through the furnace, and thence through the other side of the economizer. It then passes to the stabilizing unit, at which point a separation is made between the polymer liquid, and all lighter materials. The lighter materials in vapor form pass to the furnace feed stripping unit and thence to the recovery system. In the furnace feed stripper and recovery unit, recycle is condensed, separated from the residue gas, and is then again pumped through the furnace. The flow sheet includes the operating ranges usually encountered, with respect to important pressures, temperatures, and characteristics of products. Since these conditions vary widely from plant to plant, definite figures cannot be given. The residue gas is discarded from the recovery system. From the bottom of the stabilizing unit the liquid mixture passes to a low-pressure rerun tower, from the bottom of which, material heavier than 400 end-point is removed, and overhead, from which, the gasoline and any lighter materials pass as vapor. This overhead vapor stream may preferably be conducted through a vapor phase treating unit. From this latter tower is produced the treated finished gasoline.

Essential Units of Process

From this description, it will be seen that the essential units of this process are:

1. Polymerization unit proper.
2. Rerunning and treating.
3. Recovery.

Dependent upon local conditions, many modifications in actual design are possible. These will be discussed somewhat more completely in considering actual plants, but it is worth while at this point to mention that, if economic, the recovery unit may be either omitted completely or used in part only. Also, in some instances, existing equipment or other considerations will permit elimination of the treating unit and of the rerun unit.

It is interesting to compare the simplified actual flow sheet, Chart 2, employed by the Humble refinery with the general one just discussed. Later in this report, the flow through this plant is explained; consequently, it is not necessary at this point to describe this. In considering this case, two factors must be borne in mind:

1. This is an extremely large plant.

2. Feed stock for the plant is relatively of high cost since its supply involves an extensive field gathering system for this specific purpose and the pipe line transportation of this material from the field to the Humble refinery.

For these and other reasons, this plant has been designed with a substantially complete and relatively expensive system for the recovery of propane. Owing to the location in a large refinery, it will be observed that for this particular case the thermal polmer gasoline is not produced as a single stream but is separated into a light and heavy product. The light product is treated only by addition of an inhibitor, while the heavy poly gasoline is acid-treated and rerun together with other refinery stocks. This flow sheet is included to illustrate a large unit in a refinery location where feed stock is relatively valuable. Both these factors tend to justify complete and expensive equipment.

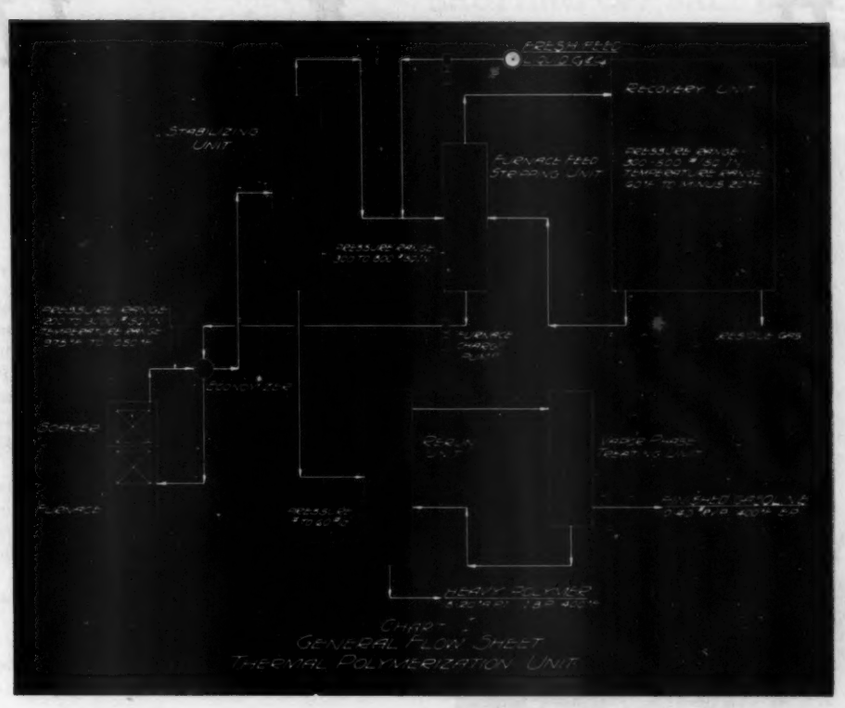
As illustrating a smaller plant, and one in which feed stock and gasoline are of considerably less value, reference may be made to flow diagram, Chart 3, for the Borger, Tex., plant of the Phillips Petroleum Co. It will be noted that this includes

*Presented before 1939 annual meeting Natural Gasoline Association of America, Tulsa.

all the essential elements shown on the general flow sheet, but that in this unit the recovery system, as an independent unit, is completely omitted and use is made only of that recovery which results from employing water and a de-ethanizer pressure of 800 lb. In this case, vapor phase treating of the product is used. Further information regarding this plant is submitted elsewhere in this paper.

As examples of the possibilities of simplification and adaptation to special local conditions, Charts 4 and 5 are given. Chart 4 shows (1) elimination of all recovery except that resulting from use of cooling water, and (2) elimination of all treating and rerunning equipment. It is apparent that this is a highly simplified and inexpensive design, well adapted to small capacity units. Obviously, the liquid product may not be gasoline, since all the liquid produced by the process is included in it. This poly liquid may be further refined in existing equipment, or if economic, it may be disposed of in crude, where circumstances permit. An actual plant installation, using this design, of a product capacity of about 2,000 gal. per day has been in operation for many months. This design for small capacity has therefore been demonstrated to be thoroughly practicable, simple and inexpensive to build and to operate. It seems probable that natural gasoline plant installations would need a treating and rerunning operation, therefore, the flow shown in Chart 5 will find a greater field of usefulness. It will be noted this design is exactly similar to that of Chart 4, except that a rerun tower and vapor phase clay treatment have been added. More complete discussion of the design embodied in Chart 5 will be presented later in this paper.

From these five flow sheets it is apparent that the plant design, and, consequently, initial and operating costs, may be materially modified to suit particular local conditions, among the most important of which are (1) size of plant, (2) existing plant facilities, (3) value of feed materials, and (4) value of products.



Feed Stocks, Yields and Product Quality

The useful feed stocks of the polymerization unit are recovered from either refinery gases or field gases and consist essentially of propanes, propylenes, butylenes, iso-butanes and normal butanes or a mixture of same. These feed stocks are produced from the gases in the conventional way, either by absorption, redistillation and fractionation of the desirable fraction, or by low temperature recovery. The former is the most generally used method in casinghead plants and produces the desired fraction generally as an overhead liquid product from the stabilizer. The low temperature recovery system, which more recently has made its appearance in the field, produces the desired fraction from the field gases by fractionation at a suitable temperature and pressure. In this paper the feed stocks for the polymerization unit are understood to be a liquid mixture of the aforementioned hydrocarbons, and no detailed consideration is given to the problem of the recovery of this feed stock from the field or refinery gases. It is further understood that the feed stocks may contain small percentages of methane and ethane, which as far as the process is concerned, are inert materials and are discarded in the residue gas.

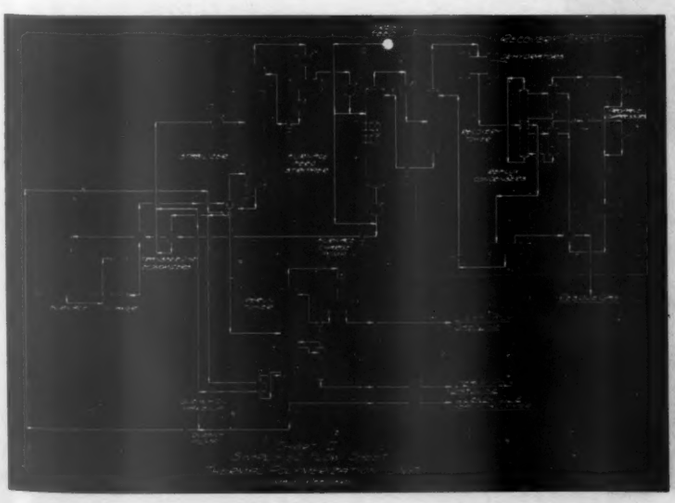
The value of feed stocks, with respect to yields from the process viewpoint, depends on its composition and it may be stated that for commercial operation in the case of saturated feed stocks, normal butane is the most valuable, while iso-butane ranks second and propane third. For all practical purposes ethane is considered to be an inert material. In the case of refinery gases the unsaturates, such as propylenes and butylenes are of the greatest value with ultimate yields as high as 83 per cent by weight. In addition to the foregoing valuations, it is here mentioned that under the same condition of pressure the ultimate yield of liquid polymer decreases with an increase of crack per pass. The crack per pass is taken as the weight of 10 lb. Reid vapor pressure liquid polymer divided by the weight of furnace charge per unit of time. The ultimate yield is taken as the weight of 10 lb. Reid vapor pressure liquid polymer divided by the weight of net fresh feed per unit of time. Table 1 presents the ultimate yield of 10 lb. Reid vapor pressure liquid polymer at various cracks per pass for propane and butane, operating with total recovery and recycling of propane and heavier.

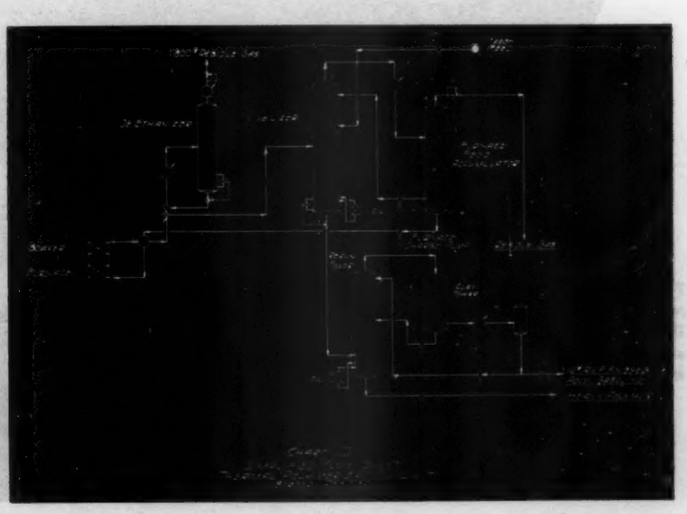
TABLE 1

Propane:			
Crack per pass, wt. per cent	5	7	9
Ultimate yield of 10 lb. R.V.P. polymer, wt. per cent	51.7	50.0	48.2
Normal butane:			
Crack per pass, wt. per cent	8	12	16
Ultimate yield of 10 lb. R.V.P. polymer, wt. per cent	67.6	61.4	55.2

The recovery of feed stocks from the residue gases is a distinct and separate operation merely

(Continued on Page 66)





Enormous Assembly Used on Gulf Coast Rig

By NEIL WILLIAMS

Renewed interest in the productive potentialities of the old Jefferson Island salt dome is being occasioned by a deep test being drilled on the extreme north flank by Phillips Petroleum Co. It is out from the dome from any previous tests on that side and more than a mile around the dome from Texas Co. operations on the east flank.

The test marks Phillips Petroleum Co.'s debut in Jefferson Island, making two active operators at that dome, where development had been limited to one company at a time. Three rigs are running, one by Phillips and two for Texas Co.

So far, production has been confined to the east flank, where Texas Co. completed two wells. A third well is in process of completion, while a fourth is drilling. The discovery well, No. 1 Jefferson Island Salt Mining Co., was completed a year ago. Production in this well, drilled to 9,031 ft., where it was in salt topped at 8,683 ft., is from a sand in which casing was perforated at 8,170-8,210 ft., initial production being 600 bbl. daily through a 10/64-in. choke.

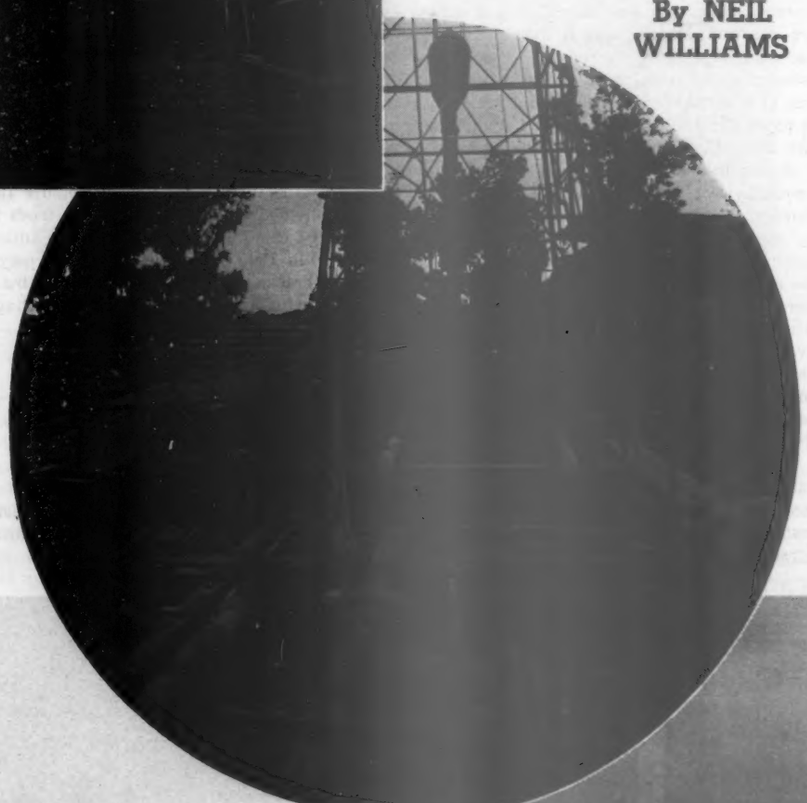
The discovery well is on the southeast bank of Lake Peigneur, a sizable, state-owned inland body of water, which overlies a large part of the top of the salt mass. The second well, offsetting the discovery producer, is just offshore. Drilled to 7,897 ft. in salt, it was completed with casing perforated at 7,827-37 ft.

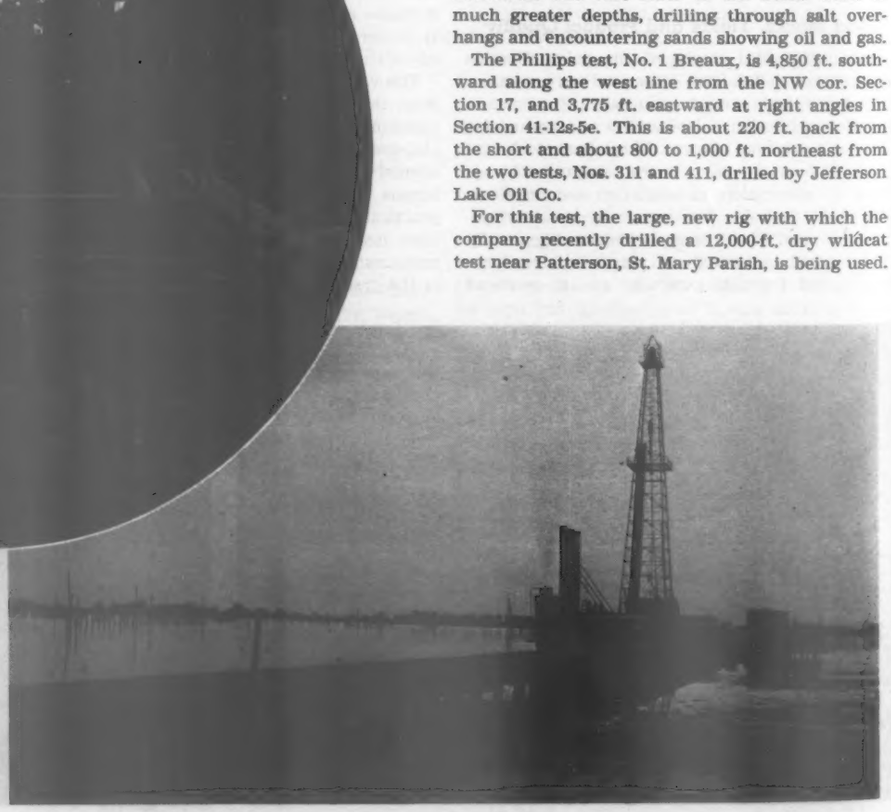
In the two additional tests drilled, Texas Co. has attempted to follow the periphery of the dome, stepping southward about 750 ft. for its second land location on the Jefferson Island Salt Mining Co. property, and about the same distance northward and farther out in the lake for the second state well.

On the extreme north flank, where Phillips Petroleum Co. is drilling, previous oil exploration has been limited to two tests by Jefferson Lake Oil Co. in 1936. One, No. 322 State, reached 5,690 ft., where it was abandoned in salt after several sidetracking attempts. No. 411 was junked at 4,698 ft. These tests, both just offshore, were two of a number of oil exploratory tests drilled by that company in 1935, 1936, and 1937 around the northeast and east sides of the dome following abandonment of its sulfur operations and before it turned over its leases to Texas Co. Several of the tests on the northwest and east sides of the dome went to much greater depths, drilling through salt overhangs and encountering sands showing oil and gas.

The Phillips test, No. 1 Breaux, is 4,850 ft. southward along the west line from the NW cor. Section 17, and 3,775 ft. eastward at right angles in Section 41-12s-5e. This is about 220 ft. back from the short and about 800 to 1,000 ft. northeast from the two tests, Nos. 311 and 411, drilled by Jefferson Lake Oil Co.

For this test, the large, new rig with which the company recently drilled a 12,000-ft. dry wildcat test near Patterson, St. Mary Parish, is being used.





Top: Phillips Petroleum Co.'s No. 1 Breaux, deep wildcat test drilling on north flank of Jefferson Island salt dome, Iberia Parish, coastal Louisiana. Circle: Mud system, showing pits and pump installations. Right: Texas Co. No. 2 State-Lake Peigneur, deep test drilling on east flank of Jefferson Island salt dome

The rig has created considerable interest as one of the largest, most modern and most complete assemblies of drilling equipment on the Gulf Coast. The Patterson test, abandoned as dry, was the first hole with the rig, the equipment being moved directly from that location to Jefferson Island. With this setup, exploration of this company at Jefferson Island will be materially expedited. The rig embodies a 10-in. drawworks, the largest and newest size made. It has a 20½-in. high-speed oil-bath rotary, driven by a separate 9 by 8-in. horizontal steam engine; two 20-in. mud pumps, with an additional 18-in. pump for mixing mud and circulating through the centrifuge desander and degasser; a 990,000-lb. load, 136-ft. steel derrick with a 36-ft. base; a 700,000-lb., six-sheave traveling block and a seven-sheave crown, capable of handling 12 lines; four 130-hp., 350-lb. working pressure superheated boilers; a boiler feed water installation containing three 10 by 5 by 10-in. horizontal pumps with a centrifugal feed pump as a standby; a water preheater, operated for a temperature of 208° F.; a treater for softening water, and two generators, mounted in parallel, to supply lighting and power requirements.

A feature is the horizontal steam rotary drive engine mounted below the derrick floor to provide greater working space and room on the floor. The engine is hooked up with a special jackshaft having chain drives, not only to the rotary, immediately above, but also to the coring reel, and to the main drawworks, which can be run by the rotary engine in an emergency. All clutch and chain drive controls are mounted on the derrick floor at the hand of the driller. Both the main engine and rotary engine are equipped with "kicker" throttles, a new device to lighten the work of the driller.

The units, including boilers, and feed pump, generators and manifold hookups, are unitized to facilitate moving and setting up. In the boiler feed pump installation, one pump serves as the water well pump, pumping direct from the well to the preheater. As hooked up, any one of the pumps can be used for this purpose, the other two pumping from the preheater to the boilers.

For the drilling hookup, provided to meet most any emergency that might arise, two complete blowout preventer assemblies have been provided. On the bottom is a 13⅜-in. master gate with a 13⅜-in. preventer of a pressure-operated type. Above this is another 13⅜-in. master gate with blind rams, on which is a second preventer of a type to permit going in and coming out of the hole and rotating under pressure. All pressure operated controls are located on an extension platform off the derrick floor, convenient to the driller.

Special attention has been paid in the setup to provision of a complete, adequate mud system. All pits are walled with timbers to prevent possibility of contamination or loss of mud. The system includes a secondary mud ditch from under the derrick floor to the pits into which mud emptied while breaking out pipe is returned to the system. This prevents accumulation and loss of any mud under the derrick floor. All mud is circulated through a centrifuge desander and degasser.

Starting the test, 25½-in. hole was drilled for the 110 ft. of 20-in. conductor pipe, followed with about 2,000 ft. of 17½-in. hole for the 13⅜-in. surface casing. Since, 11-in. hole has been drilled. Drill pipe is 4½-in., 16.60-lb., internal flush, external upset. On the bottom of this string is run 150 ft. of 7¾-in. drill collar, and at present 13 joints of 6-in. drill pipe. Later, six or seven joints of the 6-in. may be taken out. This supplies all weight for drilling, the 4½-in. pipe being held in tension at all times, taking from one to two points on the indicator.

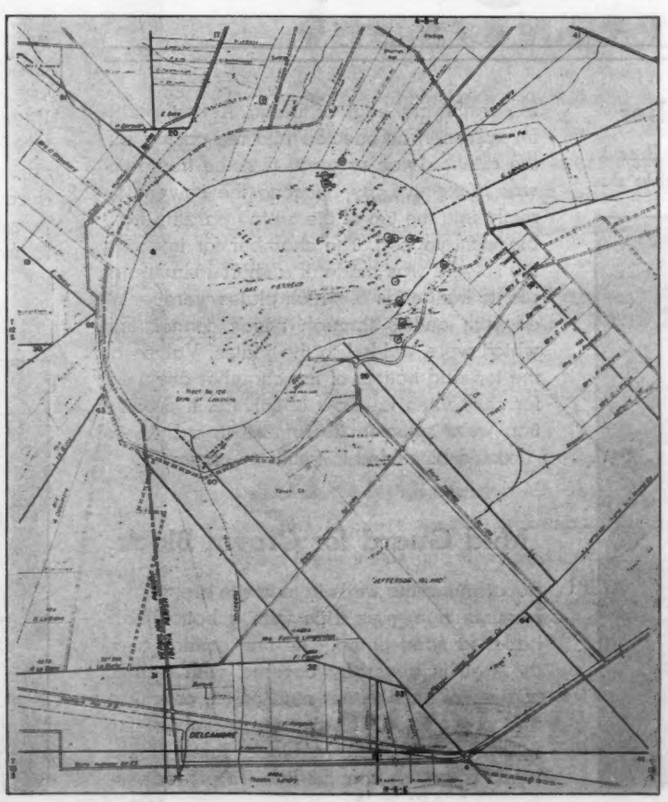
Drilled From Piling Foundations

Texas Co. is running one rig of its own and contracting the other work to Parker Drilling Co. Its own rig is used on the land locations, lake bed tests having been drilled with the contract rig. The lake operations have been drilled from piling foundations, connected to shore by a plank roadway, also on piling. Use of a drilling barge large enough for the deep drilling required would necessitate an almost prohibitive dredging undertaking for the present.

More than 400 sulfur wells were drilled in the lake by Jefferson Lake Oil Co. A drilling barge was used for these, but this was of the floating type, in contrast to the heavy submersible barges for deep oil drilling

Development of oil production and continued exploration at Jefferson Island is significant, as the dome is one of the "Five Islands," a group comprising some of the oldest known salt domes on the Gulf Coast, on none of which, until the discovery of oil at Jefferson Island a year ago, had commercial oil production been found. With the development of oil at Jefferson Island, the belief that all salt domes will be found productive has been strengthened, which may be the incentive for continued exploration, not only at Jefferson Island, but also at all other old domes.

Map of Jefferson Island salt dome, Iberia Parish, coastal Louisiana, showing location of Phillips Petroleum Co.'s No. 1 Breaux, deep test on north flank, and other deep oil tests (circled) drilled since 1935. (Map courtesy Zingery Map Co.)



SHUTTING OFF SALT WATER

In 1936 we drilled a well in Jefferson County, Kentucky, to the "Louisville limestone" (this is the famous "Clinton" iron-ore formation at Birmingham, Ala.), which is of Silurian age; we obtained a gas production of approximately 350,000 cu. ft. daily with a pressure of 87 pounds per square inch. The depth of the well was 305 feet and the market price at the well head is 14 cents per thousand.

The hole was drilled deeper in anticipation of oil in a lower sand but because of difficulties this was abandoned.

Salt water now covers the face of the producing sand and I wish to drill an offset well to obtain the gas above mentioned.

The question is, how close may this offset be placed to the original well without encountering any water that may have entered the gas sand? The old well was bailed in the last few months in an unsuccessful attempt to recover the gas production. The gas was there with the same volume and pressure but mechanical difficulties prevented it from producing in commercial quantities. There are other old producing wells in the vicinity.

Since I have no samples to send, I realize any information will be somewhat conjectural and I shall take recognition of this fact. Any information will be appreciated.—D. S., Louisville, Ky.

In view of the fact that we are not familiar with all of the details the answer will have to be quite general.

In dealing with wells producing from lime formations a great many things influence the situation. The lime formations vary widely in porosity and permeability and it is often possible for fluids to travel considerable distances quite rapidly and a "natural" water drive may be induced in the pay formation. This might be the case in your well.

If the well has not already been plugged it might be possible to get it back on production by installing a "siphon" string of tubing either three-quarters or 1 inch in diameter. This will allow the gas to force out the water and the two can be separated at the surface. Of course, the water entering the hole should be reduced to the minimum by use of cement or packers before the "siphon" string is installed.

Failing to produce the well, it should be plugged securely so that water from above and below the sand cannot enter it. If the lime formation is extremely permeable and the old hole is not properly plugged this may lead to the entire field being flooded in a short period of time. A good plug can be made by bridging above or below the water source with a wooden plug, followed by gravel and sand and then cement slurry. The cement can be mixed on the derrick floor and then placed on bottom in a dump bailer; if the hole is filled with water the cement will be forced back into the formation and water prevented from entering the sand. It is better to run a plug on top of the cement but it is not necessary.

With the old well properly plugged, a new well can be drilled within a hundred feet, providing the old well was not flooding the sand over too great a period and the lime was not highly permeable. In the latter case it would probably be advisable to get farther away from the old hole. A further suggestion is not to drill too far into the pay in the new well.

Portable Tank for Bailer Dump Box

In the Mansion area of the Oklahoma City field great care must be taken to prevent damage to the properties surrounding the wells. There is, unfortunately, generally no place to dump refuse obtained from the bottom of the holes while repair work is in progress. In the picture, the contractor has built portable steel tanks mounted on skids for use with cleaning out units. These are divided into two sections to facilitate separation of cuttings and fluid. An adjustable swing makes further separation of water and oil possible, the former being run into the cellar and the latter being pumped into the tanks. When the tank becomes full of cuttings it can be loaded onto a truck and hauled outside the city limits. This method also permits an accurate estimate of the amount of debris removed from the well.

liquid from getting on any of the surrounding houses, some contractors build a windbreak around the crown block to catch the oil and mud. In some cases they are complete with roof, while in others a wall of sheet metal is built around the crown block.

Operating Ideas

Paraffin Solvent Chamber

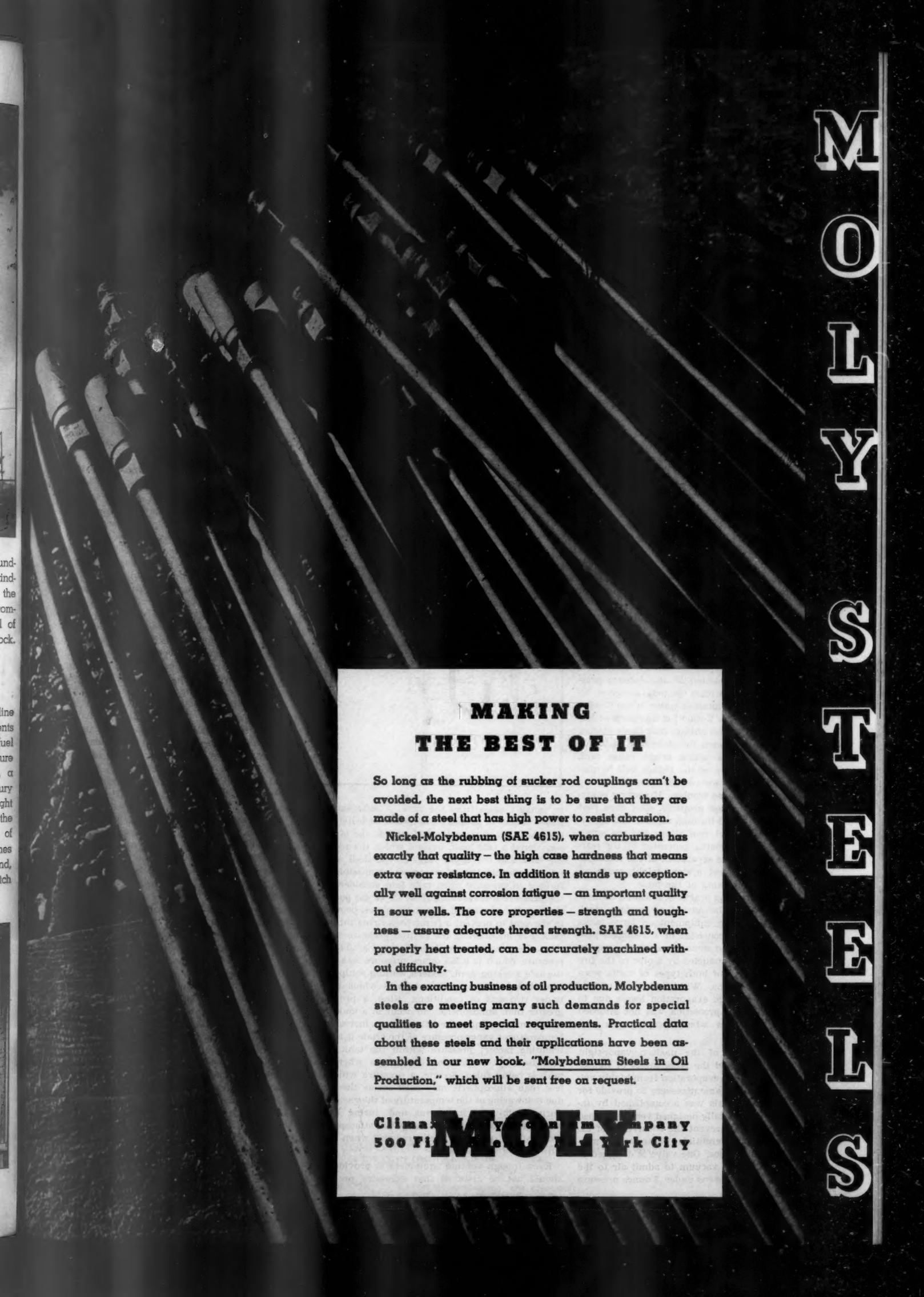
An operator with properties in the Burrton field, Kansas, had considerable trouble due to paraffin in the top of tubing. At first, paraffin solvent was injected into the casing but the dilution was so great that the treatment was ineffective. By injecting the solvent directly into the top of the tubing paraffin trouble was stopped. The chamber for injecting the solvent was made of a short 10-inch nipple, to both ends of which plates were welded with outlets through 2-inch connections which were welded to the plates. Valves at the top and bottom of the chamber are used for controlling the flow of solvent. If production were sufficient to require it, a by-pass could be added to facilitate operation.

Mud Guard for Crown Block

Repairing of the wells in townsite areas often requires numerous trips with a bottom-hole bailer or sand pump. The line coming from the well is generally covered with a light coating of fluid, either mud or oil, or a mixture of both. As the rapidly traveling line passes over the crown block, some of this liquid is thrown from the line. To prevent this

Pressure Gage

The superintendent of a natural gasoline plant in Arkansas has installed instruments for observing fluctuations of pressure in fuel manifold. In addition to a dial pressure gage and a recording pressure gage, a U-tube with mercury is used; the mercury tube is sensitive enough to indicate slight variations in pressure. One inch on the accompanying scale represents 1 lb. of pressure. The wells, from which gas comes to the plant, are flowed intermittently and, for this reason, it is important to watch changes in pressure.



MAKING THE BEST OF IT

So long as the rubbing of sucker rod couplings can't be avoided, the next best thing is to be sure that they are made of a steel that has high power to resist abrasion.

Nickel-Molybdenum (SAE 4615), when carburized has exactly that quality – the high case hardness that means extra wear resistance. In addition it stands up exceptionally well against corrosion fatigue – an important quality in sour wells. The core properties – strength and toughness – assure adequate thread strength. SAE 4615, when properly heat treated, can be accurately machined without difficulty.

In the exacting business of oil production, Molybdenum steels are meeting many such demands for special qualities to meet special requirements. Practical data about these steels and their applications have been assembled in our new book, "Molybdenum Steels in Oil Production," which will be sent free on request.

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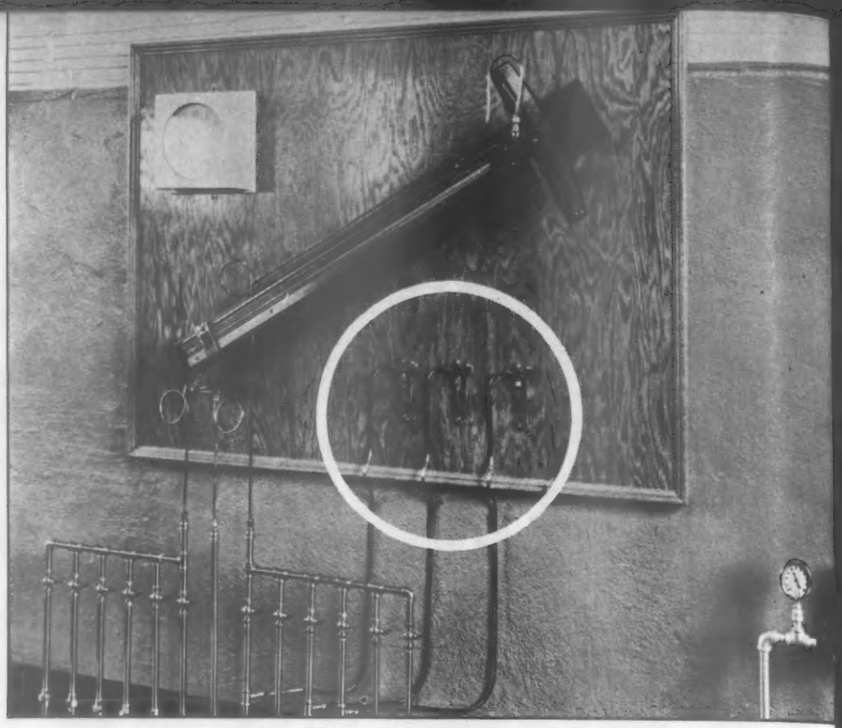
MOLY

U-Gages Safeguard Pipe Line Tanks



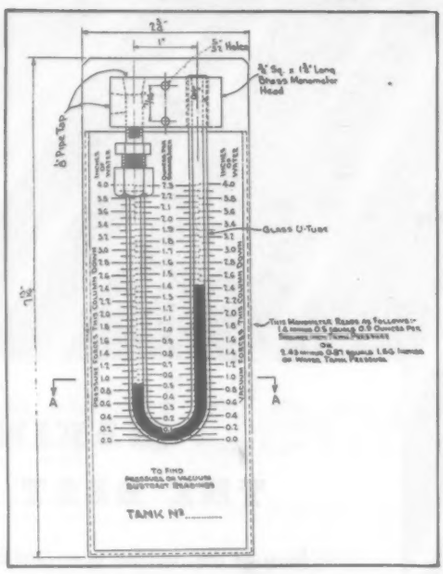
By PAUL REED

To provide an instrument at a pipe line station which will indicate the existence of dangerous pressure conditions in tanks, engineers of the Stanolind Pipe Line Co. have developed a U-gage to a point where it is established in the company's operations as an important safeguard.

A separate U-gage is used for each tank observed; the gages are mounted on the same instrument board which holds Pneumercator equipment at a station. One end of the U-tube is open to the air while the other is connected with a ½-in. line which also serves the Pneumercator. Indications of the relation of atmospheric pressure to the pressure within the tank are given by the position of the column of water in the U-tube. The application of the U-tube for this purpose has come as a result of recognition that there existed a need for simple means for observing excessive differential pressures which might cause tank failures. A description of the U-gage will be presented after giving some consideration to venting conditions which cause trouble. If venting equipment does not function properly, steel cone roof tanks are likely to fail through rupture and distortion of structural steel, roof plates, and the upper rings of the tanks. Sparks generated by the tearing of the steel or the separation of the members of the structural steel system might cause an explosion or the burning of the tank.

In reviewing venting practices, it should be mentioned that before the advent of modern steel-roofed tanks, venting equipment on large tanks was home-made; it consisted of a T-shaped pipe placed on the roof. In some cases vapor escaping from the vent was conducted by a pipe to the fire wall. The openings of both types of vents were equipped with screens. With equipment of this kind there were large evaporation losses due to breathing; adequate protection was not afforded to prevent backfires when escaping gas was ignited.

With the advent of the modern vapor-tight steel-roofed tanks and the large losses of lighter hydrocarbons due to evaporation from highly volatile crude oils, it became necessary to provide for efficient venting. This was accomplished by installation of scientifically designed vents equipped with two valves to prevent the occurrence of excessive pressure differentials; these valves minimized breathing losses. One valve is designed to open under .2 ounce vacuum to admit air to the gas space; the other opens under .5 ounce pressure



Above: Three U-gages mounted on instrument board. Left: U-water gage with scale

to exhaust gases from the tank. A difference of 0.8655 ounces of pressure (1.5 inches of water) between the pressure inside and outside the tank is considered a safe limit, beyond which the roof of the tank and the upper rings of the shell might fail. A determination of maximum permissible difference in pressure must take into consideration the pressure loss resulting from air or gas passing through the perforated aluminum plates, provided in the vent to prevent a flame back-firing into the tank. For maintaining the desired pressure conditions, the pressure valve is set to open at .5 ounce pressure which is 0.365 ounce pressure less than the safe working limit. Modern venting equipment is designed to deal with pressures which occur under two sets of conditions. First, a pressure greater than atmospheric can occur in a tank due to expansion of gas when there is an increase in temperature; vapor pressure of the crude is a contributing factor; pressure within the tank may be raised by compression of the gas when the tank is being filled. Second, a pressure which is less than atmospheric may exist inside the tank due to lowering of the temperature of the gas space during rain- and hailstorms and during times when there is a sudden change in atmospheric temperature; pressure is also reduced when oil is withdrawn from the tank.

Even though venting equipment is provided, it should not be assumed that excessive pressure differentials cannot occur. Care and attention are needed to safeguard tanks against damage which may come from a number of causes. Excessive pressures may be due to valves being frozen to their seats. Valves may not be large enough to let vapor out or air into the tanks in sufficient volume for safe operation. Unusually large rates of withdrawal or filling may require venting in excess of the capacity of the venting equipment. Flame arrestors may be clogged with dust, particularly on the tanks which have been idle, or they may be frosted over in foggy or chilly weather. Venting equipment must be looked after or it may be necessary to replace a damaged roof.

For quickly detecting when vents fail to function properly, the Stanolind Pipe Line Co. has adopted the U-gage because it is sensitive and simple. After using U-gages on some of the cone roof tanks, it was concluded that indications of pressure conditions could be obtained just as accurately in the station by observing a U-water gage connected with Pneumercator lines as with a gage of this type directly connected on the tank roof.

The U-gage is simply a glass tube, bent in the shape of a letter U; by connecting opposite ends of the tube to two different pressures, the difference in the two pressures can be measured by observing the difference in the height of the two water legs in the U-tube. The safe difference between the pressure inside the tank and the atmospheric pressure is less than an ounce; this is so small that for measuring it, a U-water gage is necessary; it is too small for a hourdon gage. The instrument originally used read in inches of water; a scale has been recently provided for every instrument which makes it possible to convert inches of water into ounces of pressure. The customary method for determining large differences in high pressures is one which makes use of two pressure gages; this is not adaptable for checking small differences of less than an ounce between atmospheric and tank pressure. The U-water gage is especially adapted for this service. The drawing accompanying this article shows water in the right leg standing at little more than 2.4 in., whereas water in the left leg is standing at nearly 0.9 in. of water. There is a difference of about 1.6 in. of water, or, as the inside scale shows, a difference of 0.9 oz. of pressure. The safe limit for a difference of pressure, either "vacuum or pressure," between the inside of the

(Continued on Page 65)

Natural Gasoline and Poly Plant Chart

By W. L. NELSON

One of the major mathematical computations in the design of natural gasoline and refinery equipment is the determination of the compositions of the gas and the liquid that exist together under equilibrium conditions. This computation is involved in numerous plant operations—a few typical examples being:

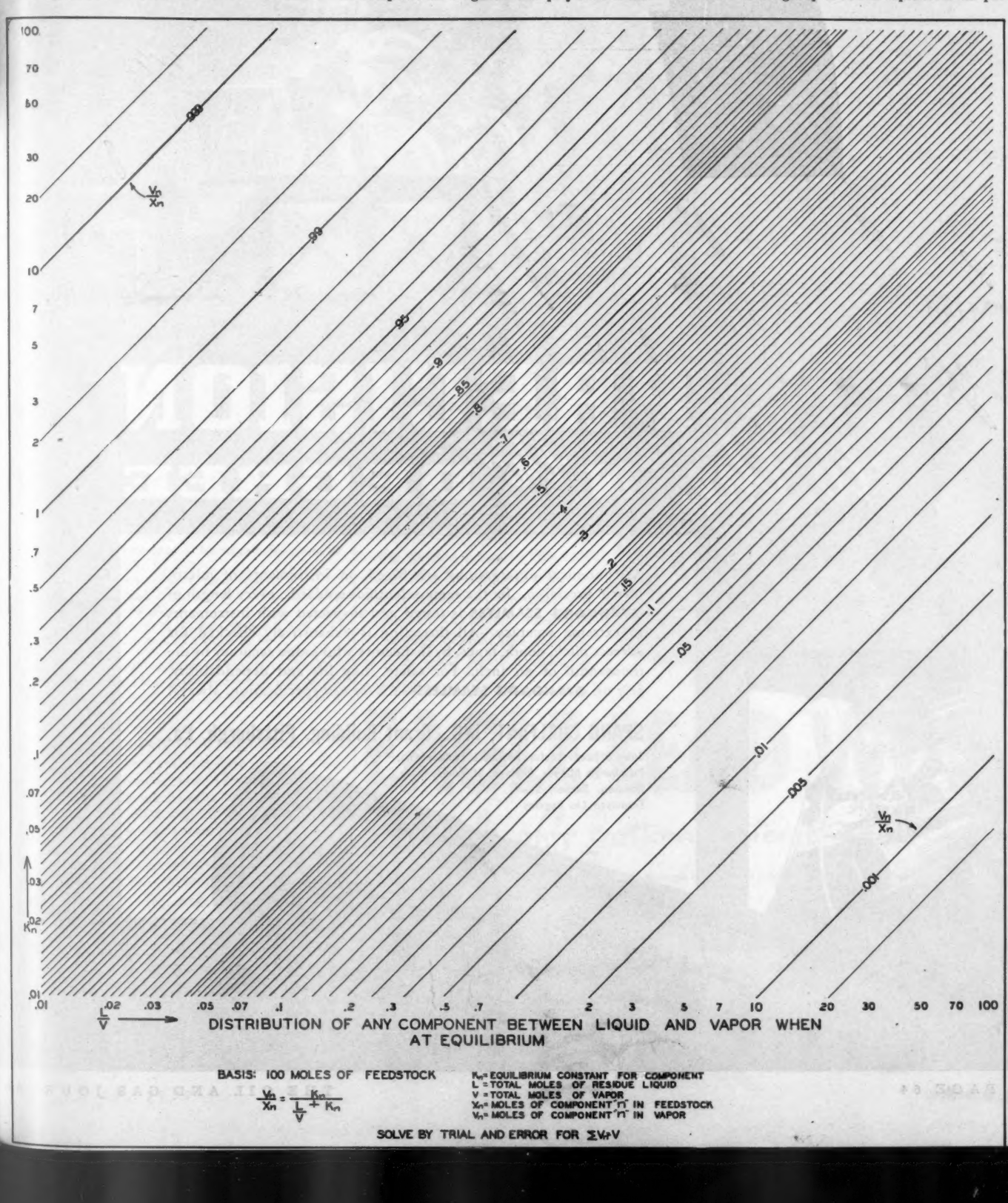
1. Oil-well separators.
2. Condensation in gas compressors.
3. Temperatures in gasoline or poly stabilizers.
4. Gas-separator temperatures.
5. Fractionating towers if hydrocarbon components are known.
6. Condensers if hydrocarbon components are known.
7. Distillate-well separators, although equilibirum data are not always available.

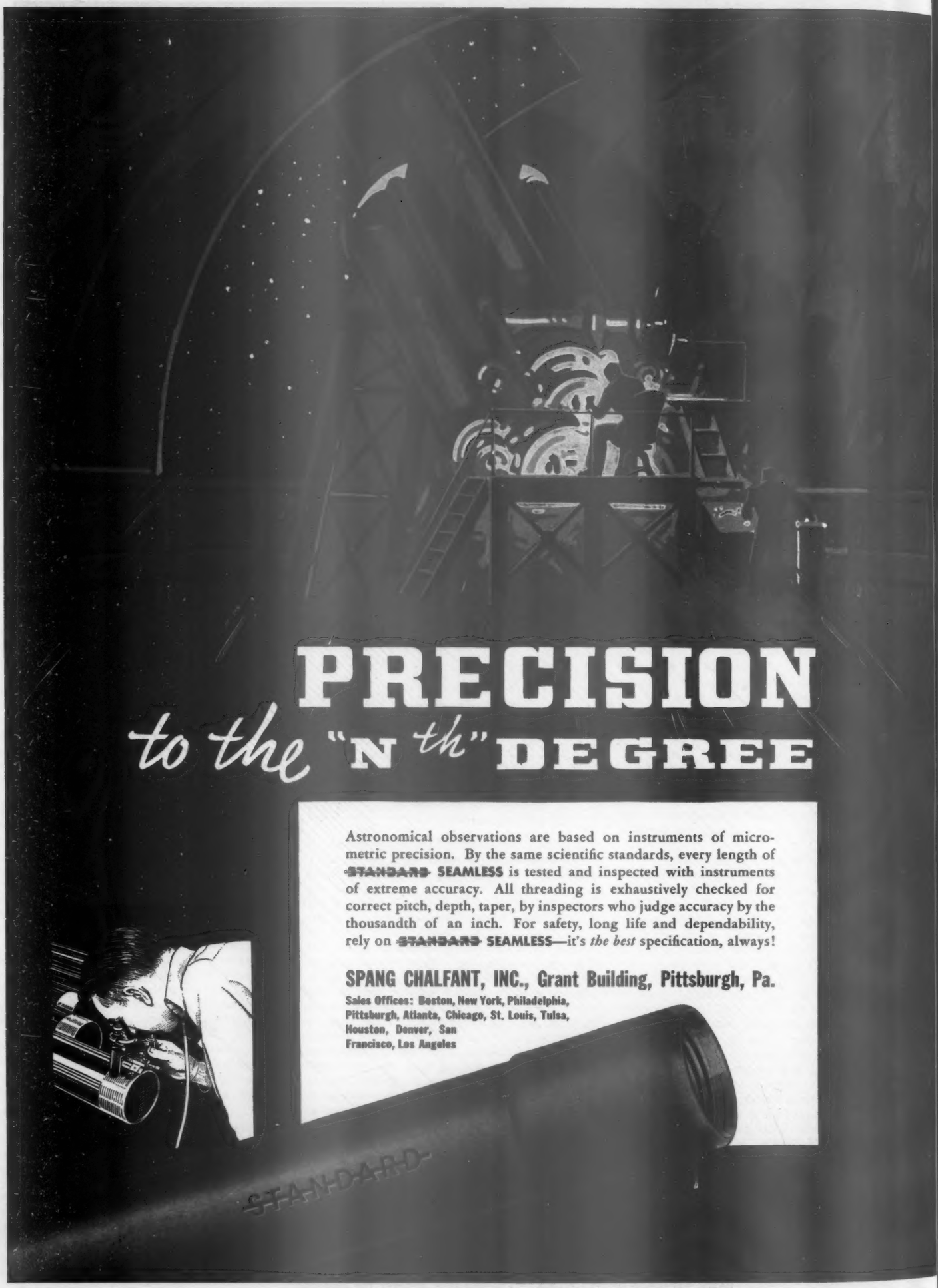
The usual method of determining the compositions and amounts of liquid and vapor is by use of equations of the general form:

$$V_1 + V_2 + V_3 + \text{etc.} = \Sigma V\text{'s} = V$$

$$\text{or, } \frac{K_1X_1}{\frac{L}{V}+K_1} + \frac{K_2X_2}{\frac{L}{V}+K_2} + \frac{K_3X_3}{\frac{L}{V}+K_3} + \ldots\ldots \text{etc.} = V$$

in which each group of terms represents the per





PRECISION *to the* "N th" DEGREE

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EXAMPLE COMPUTATION USING CHART

Col. (1) Material	(2) X's, mol %	(3) K's 380°-400 lb.	(4) V_1/X_1 from chart (Assuming $V = 90.5$)	(5) V_1 Col. (4) times Col. (5) (Assuming $V = 90.5$)	(6) V_1/X_1 (Assuming $V = 89$)	(7) V_1 (Assuming $V = 89$)	Products, mol % Gas	Products, mol % Liquid
H_2	1.5	High	1.000	1.50	1.000	1.50	1.68	....
CH_4	14.7	*78.0	.998	14.68	.998	14.68	16.49	.2
C_2H_6	1.2	*4.4	.975	1.17	.971	1.16	1.30	.4
C_3H_8	12.1	*2.27	.954	11.53	.947	11.47	12.88	6.0
iC_4H_{10}	61.5	*1.60	.937	57.60	.927	57.00	64.05	40.8
Poly gaso.	7.2	†0.10	.485	3.49	.442	3.18	3.57	36.5
Gas oil	1.8	†0.002	.016	.03	.014	.02	.03	16.1
				90.00		89.01	100.00	100.0

*Taken from G. G. Brown's equilibrium constants *not* corrected by deviation factors.
†Estimated from the vapor pressures of the normal paraffin hydrocarbons.

centage of a hydrocarbon component in the final gas phase. The symbols are

K_1, K_2, etc. = equilibrium constant for each component
X_1, X_2, etc. = mol percentage of each component in the feed
L = mol percentage of final liquid
V = mol percentage of final vapor or gas

In solving such an equation, a trial-and-error type of solution, by which L (or V) is assumed and then introduced into the equation to see if it will balance, is necessary, and hence the chart shown on this page was developed to reduce the time required for this tedious computation. The chart reduces the time required for a trial-and-error solution of the equation to about half.

In plotting the chart, the V_1 term (and others) were rearranged as

$$V_1 = \frac{K_1 X_1}{\frac{L}{V} + K_1}$$

to,

$$\frac{V_1}{X_1} = \frac{K_1}{\frac{L}{V} + K_1}$$

and the values of V_1/X_1 were plotted against L/V and K. In using the chart, it is necessary to go through the following operations:

1. Assume a value of V or L.
2. L is equal to $(100-V)$.
3. Compute the value of L over V.
4. Tabulate the values of K for each component in the mixture.
5. Read values of V_1 over X_1 from chart.
6. Determine values of V_1, V_2, etc., from V_1/X_1 by multiplying by X_1.
7. Sum the values of V_1, V_2, etc., to see if the total is equal to the assumed value of V.

In case the assumed value of V is not correct, it is necessary to make a new assumption and repeat the above operations until the assumed value is found to be correct.

Example—Poly Plant Fractionator

The composition of the feed stock to a poly plant fractionator is given in Column 2 of the tabulation. This material is admitted to the fractionating tower at a feed plate maintained at 380° F. and 400-lb. per sq. in. abs. pressure. The purpose of the computation is to determine the amount of material that will be vaporized at such conditions.

Assumed that 90.5 per cent will be vaporized.

$$\frac{L}{V} = \frac{100-90.5}{90.5} = 0.105$$

A second assumption that $V = 89.0$ was more successful.

U-GAGE

(Continued from Page 60)

tank and atmospheric is 1.5 in. of water, which is equivalent to 0.865 oz. of pressure. Each of the U-gages is provided with a brass indicator, 1½ in. in length, which slides on the legs of the U-gages. This brass indicator is intended to be a means for calling the attention of employes to the existence of excessive "pressure and vacuum" conditions when they occur in a tank, in order that prompt investigation may be made as to the cause. The scale used with the gage is placed in a brass label holder at the instrument; it is protected by a transparent celluloid shield. The zero on the scale is set to line up with the bottom of the inside of the U-tube. This arrangement permits the evaporation of water without necessitating any adjustment in the scale for "zeroing". Scales are numbered according to tank numbers.

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POLYMERIZATION

(Continued from Page 53)

to enhance the economic features of the polymerization plant. The recovery may be accomplished at low temperatures whereby all the butanes and a large part of its propanes are recovered from the residue gas and recycled to the process, or the recovery may be partially accomplished by cooling with water. For commercial operation, the degree of recovery of these feed stocks from the residue gas depends on the cost of recovery of the feed stock compared with the cost of fresh feed stock, giving proper consideration to their respective yields of polymer liquid. Therefore, in casinghead plants where the value of the feed stock is low, only partial recovery of feed stock from the residue gas is warranted. In cases where the residue gas from the polymerization unit may be recycled in the existing absorption plant, operation with recovery by cooling with water becomes economical.

In addition to the decrease of yield with a higher crack per pass the ratio of heavy polymer production with respect to the light polymer with 400° F. endpoint is increased. This increased production of the fraction boiling above 400° F. at various cracks per pass is presented in the following table:

TABLE 2—HEAVY POLYMER PRODUCTION

(Fraction boiling above 400° F.)

Crack per pass, wt. %	4	6	8	10	12	14	16
Heavy polymer, wt. %	0.3	2.1	4.1	6.0	8.0	9.9	11.9

From the foregoing it can readily be seen that the crack per pass is of major influence on the design of the plant, as for a lower crack per pass the gain in yield of 400° F. endpoint gasoline does not offset the increase of furnace throughput with consequent increase of the size of the furnace, the stabilizing unit and the recovery system. In practice, however, it has been found that the crack per pass is also a major influence on the length of the run that can be obtained, and in general, it may be said that the lower crack per pass lengthens the run while the higher crack per pass has the opposite effect. At the higher crack per pass it has been found necessary to inject a heavy quench oil at a suitable point in the transfer line to retard the deposit of coke in the transfer line economizers and obtain a run of commercial duration. It is for this reason that polymerization units operating in connection with refineries are designed and operated at a high crack per pass as facilities for quenching with heavy oil are available, while in the case of a polymerization unit operated in connection with a casinghead plant, the design is based on a low crack per pass, thus lengthening run, increasing yields, and reducing operating difficulties.

In the processing of propanes and butanes for the production of polymer liquid, the greater refractoriness of propane compared with normal butane requires almost four times as large a furnace soaking volume, which necessarily results in a greatly increased furnace cost. The following examples illustrate the required soaking volume for propane and butane:

TABLE 3

	Propane	Normal butane
Crack per pass, wt. per cent	5	8
Temperature, °F.	1,030	1,030
Pressure, lb./sq. in.	1,600	1,600
Feed quantity in lb.	100	100
10-lb. R.v.p. poly. liquid in lb.	51.7	67.6
Ultimate yield, wt. per cent	51.7	67.6
Feed quantity in gal.	23.5	20.5
10-lb. R.v.p. poly. liquid in gal.	8.5	11.0
Ultimate yield volume, per cent	36.2	53.7
Furnace soaking volume, cu. ft.	5.21	1.36

The foregoing shows that for the mentioned conditions of pressure and temperature, the required soaking volume for the processing of 100 lb. of propane is 3.83 times as great as for 100 lb. of butane. Furthermore, it is here mentioned that the soaking volume is independent of the crack per pass, and that commercial operation with a propane feed stock has to be conducted at a considerably lower crack per pass than commercial operation with butane feed stock. This required operation with a lower crack per pass results in an increased plant cost, due to increase of size of equipment throughout, as has been described in a previous paragraph.

The characteristics of the clay-treated 400° F. endpoint poly gasoline are shown in the following inspections:

TABLE 4—CLAY-TREATED POLY GASOLINE

Gravity, °A.P.I.	62-63
Initial boiling point, °F.	84
5 per cent	106
10 per cent	122
20 per cent	148
50 per cent	190
90 per cent	320
Endpoint	400
Octane number, A.S.T.M. clear	78
Reid vapor pressure, lb.	10
Copper gum, mg./100 cc.*	2-20

*The reduction in gum content is dependent upon the extent of the clay treatment.

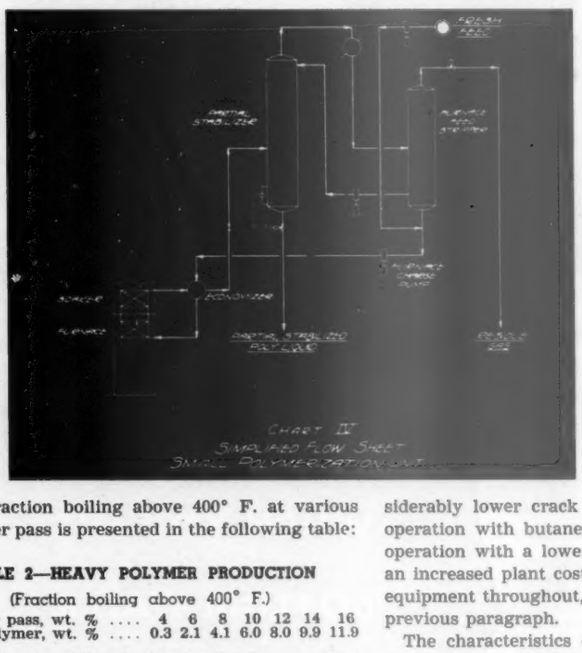
The composition of the residue gas depends on the operation of the polymerization unit and consists of actual gas produced by the polymerization process, the small amount of ethane and methane from the fresh feed and an additional amount of propane and butane required to reach equilibrium at the condition of pressure and temperature at the point of exit of the process.

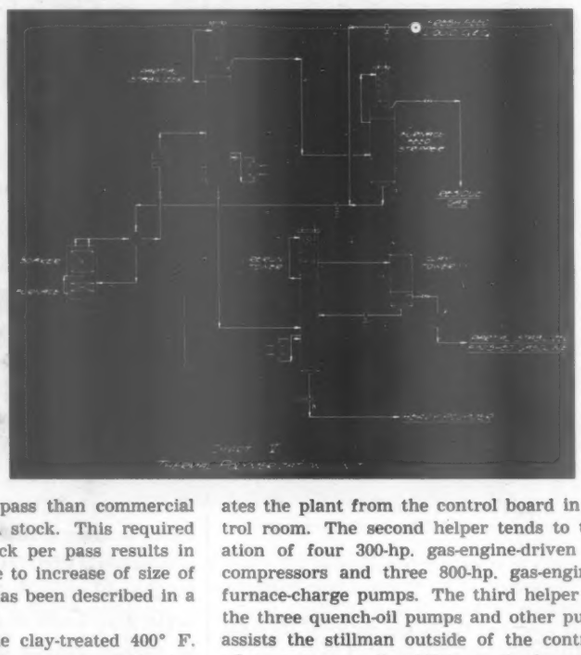
The average gravity of the residue gas in a plant operating with recovery by water cooling is approximately 1.00 compared with air, and the gross heating value is approximately 1,650 B.t.u. per cu. ft.

The duties involved in the operation of a polymerization plant depend to a large extent upon its size and upon the design of the unit with respect to low-temperature recovery system, quench-oil system, number of furnace-charge streams with necessary controls, size of furnace, number of towers, reflux pumps, and additional equipment. In small-size units in connection with a casinghead plant, the design is simplified to a single coil furnace, towers with internal reflux condensers, and operation without low-temperature recovery system, which reduces the operating duties to a minimum.

The following presentation describes chiefly the operation, maintenance, and shutdown duties of the large polymerization unit with low-temperature recovery system and quench-oil system as found at the Humble refinery. The normal operating capacity of this plant is 8,000 bbl. per day of butane feed stock. It will be evident that due to less equipment and simplified design, the small-capacity unit will require much less operating labor and maintenance.

The operation of the Baytown unit is accomplished by four operators. The stillman is directly in charge of the operation. The first helper operates the plant from the control board in the control room. The second helper tends to the operation of four 300-hp. gas-engine-driven propane compressors and three 800-hp. gas-engine-driven furnace-charge pumps. The third helper operates the three quench-oil pumps and other pumps and assists the stillman outside of the control room where necessary. In addition to the four operators, the plant as a unit is supervised by the assistant foreman of the cracking units.





In the suggested small plant there are no compressors, no quench pumps, and only one furnace-charge pump.

The maintenance of the Baytown unit involves chiefly the repair and upkeep of the following major pieces of equipment:

(*a*) Three 800-hp. gas engines driving three furnace-charge pumps.
(*b*) Four 300-hp. gas-engine-driven compressors.
(*c*) Three steam-driven quench pumps.
(*d*) Reflux and product pumps.
(*e*) Meters and control instruments.

With respect to Item *a* it is here mentioned that the plant originally was equipped with two furnace-charge pumps. After operation had proven that the unit would handle more than the design capacity, a third pump was installed in order to operate with three furnace-charge pumps at normal speed in preference to two charge pumps at higher speed to reduce cost of maintenance and to increase time efficiency of unit. The chief maintenance of this item involves the packing of the

pumps and dressing of bearings at the crankshaft of the engines. The maintenance of Item *b* involves chiefly rod packing, piston packing, and ignition. The Items *c* and *d* require chiefly rod replacement and packing. Item *e* requires the regular cleaning and checking to secure dependable operation.

Shutdowns take place at normal intervals upon completion of a run and in emergency on account of mechanical trouble which requires a shutdown for repair. In the early operations at Baytown furnace-header troubles caused several emergency shutdowns. Additional experience has largely overcome this difficulty. In case of emergency shutdown, it is customary to bring the unit back on the line as soon as the mechanical trouble has been corrected and without performing the normal shutdown duties. Exceptions to this rule are taken in case the emergency shutdown happens to occur towards the end of a run, and it is judged more economical to perform the normal shutdown cleaning at this time.

The normal shutdown duties at Baytown usually involve:

(*a*) If required, cleaning, inspection, and testing of the furnace. This is infrequent.

(*b*) Cleaning of the high-temperature transfer-line exchangers.

(*c*) Inspection of the low-temperature transfer-line exchangers and cleaning if necessary.

(*d*) Cleaning and testing of the reboilers.

(*e*) General duties involving checking and cleaning of instruments and packing of pumps, inspection of bearings, etc.

If required for inspection, the plugs and set collars of the furnace headers are removed and the tubes cleaned in the conventional way. The coke deposit in the furnace tubes and throughout the soaker is negligible, and some times the surface is not opened for 6 months. When the furnace is opened, the tubes are cleaned if needed, and after proper inspection, the headers are closed up and the furnace and soaker hydrostatically tested to 3,500 lb. per sq. in., at which pressure all plugs must be tight.

The two high-temperature transfer-line exchangers are opened, whenever data indicate coking, and cleaned if required during a shutdown, and after closing tested hydrostatically to 3,500 lb. per sq. in. Occasionally one or more of the low-temperature transfer-line exchangers are opened for inspection and based on this inspection, and the performance with respect to heat transfer towards the end of the run, decision is made as to whether these units need cleaning or are to be put back in service without cleaning.

The two stabilizer reboilers sometimes cause a normal shutdown due to coke deposit in the tubes or less frequently in the shells of the reboilers. In this latter case it is required to remove the tube bundle from the shells to enable the cleaning on tube and shell side. After the cleaning is completed, the tubes are tested, and upon satisfactory test the bundles are installed in the shells and the reboiler closed up and connected. As the reboilers are in open connection with the stabilizer, the test of the shell side of the reboilers necessarily involves the complete hydrostatic test of the stabilizing column.

The general shutdown duties such as mentioned under maintenance are too well known to warrant going into further detail.

In compliance with the standard refinery practice, all equipment that has been opened during the shutdown must pass the required hydrostatic test satisfactorily before the unit may be returned to service. In case of the furnace, which involves the tightening and proper seating of approximately 800 plugs, the required time to obtain a satisfactory test at 3,500 lb. per sq. in. may account for the largest part of the time required for testing the whole unit.

At Baytown, after extensive investigation of existing operations, economic studies have been made on the basis of 85 per cent time efficiency. At Borger, over long periods of time, the plant has operated in excess of 90 per cent efficiency, with runs of 90 days' duration. Both these plants operate at higher cracks per pass than that suggested for the small plant. It will be recalled that lower cracks per pass produce less coke and give longer runs. It is therefore believed conservative to anticipate, for the small plant, run lengths of 90 days or more and a time efficiency of at least 90 per cent.

Description and Economics of Baytown Unit

The principal features of the thermal polymerization unit at Baytown have been shown in Chart 2. The fresh feed stock is either introduced in the furnace-feed stripper or at the inlet of the furnace-charge pump. The furnace-charge material consists of the recycle material, essentially free from ethane and methane, and the fresh feed stock. The furnace charge is preheated by countercurrent heat exchange against the furnace outlet streams. The flow through the main part of the furnace is in four parallel paths, each designed to perform the same duty. Each of these four paths in the radiant sections is made up of passes of two tubes in parallel, using four-way-type header boxes. On entering the soaking section, each stream is divided, making eight parallel paths in this section. The partially cracked and polymerized soaker outlet streams, after being cooled by heat transfer and by addition of heavy recirculated quench oil is further cooled by water to control the temperature of this stream at the inlet of the stabilizer. This stabilizer produces a partially stabilized bottom product of approximately 30 to 35-lb. Reid vapor pressure, and an overhead product which is substantially free from pentane. The partially stabilized bottom product is introduced into the rerun tower, which produces as liquid overhead the light poly gasoline and excess butane. The product is debutanized elsewhere in the refinery. The side cut of the rerun tower consists of a heavy naphtha, and the bottom product consists of the quench oil and the heavy polymer. A portion of the rerun tower bottoms is recirculated and fresh quench oil added as required. The overhead product from the stabilizer is joined by the fresh feed and enters the furnace-feed stripper, where a split is made between the furnace-feed material and the lighter fractions. The overhead product from this tower is introduced into the low-temperature recovery system, where all of the butanes and a portion of the propanes are recovered by fractionation at low temperatures and returned to the furnace-feed stripper. The uncondensed vapors leaving the refrigerated partial condensers of the recovery system form the residue gas from the unit and are discharged into the refinery fuel system. More complete data respecting this plant and its operation may be found in an article by Turner and Mayer in World Petroleum for April 1938.

Typical operating conditions are listed in a foregoing table (No. 5).

TABLE 5—OPERATING CONDITIONS AT BAYTOWN UNIT

Quantities:		
Gross fresh feed, b.p.d.	6,000	9,500
Furnace charge, b.p.d.	28,000	35,000
10-lb. R.v.p. 400-endpoint poly gasoline, b.p.d.	2,600	3,250
Gas, oil, and tar, b.p.d.	140	250
Residue gas, cu. ft./day	7,000,000	15,000,000

Temperatures and pressures:	Temperature (°F.)	Pressure (lb./sq. in.)
Furnace-inlet stream:		
Furnace-charge-pump discharge	140	1,950
Furnace inlet	600- 620	.....
Furnace-outlet stream:		
Radiant-section outlet	1,000-1,030	.....
Soaking-section outlet	1,010-1,040	1,700
Outlet transfer-line exchangers	325- 400	1,000-1,200
Primary tower:		
Feed inlet	250- 300	.....
Top	190- 210	360- 400
Reboilers	350- 400	360- 400
Gasoline tower:		
Top	160	20
Bottom	350- 450	20
Furnace-feed stripper:		
Top	135	340- 380
Reboilers	200- 210	340- 380
Recovery tower:		
Top	58- 70	320- 360
Bottoms	85- 90	320- 360
Reflux	—7- 30	320- 360

Typical operating conditions are listed in a foregoing table (No. 5).

Economics of Baytown Unit

In Table 6 are given economic statements for this plant operating at three capacities, namely, 6,000 bbl., 8,000 bbl., and 9,500 bbl. per stream-day of saturated butane charge. All costs, charges and credits are in accordance with the accounting methods used by the Humble Oil & Refining Co. Therefore, the figures must be considered as applicable only to this particular case. It is interesting to note that at Baytown the most economic capacity is around 8,000 bbl. per day of butane charge, since below this figure many operating charges which are constant per day, substantially irrespective of charge rate, increase the unit cost of product, and since above this figure residue gas losses increase to the extent that butane charge is converted to fuel and again costs per unit product increase. The follow-

TABLE 6—GENERAL ECONOMICS OF BAYTOWN UNIT

Gross fresh feed (saturated field butanes), bbl./stream day*	6,000	8,000	9,500
Furnace charge rate, bbl./stream day	34,000	34,000	34,000
Gross fresh feed (saturated field butanes), bbl./cal. day	5,100	6,800	8,075
10-lb. R.v.p. 400° F. endpoint poly gasoline, bbl./cal. day†	2,200	2,572	2,735
Heavy polymer above 400° F. endpoint	115	182	212
Fuel gas produced, million B.t.u./cal. day	8,600	13,200	17,700
Cost—dollars per calendar day:			
Salaries and wages	$236	$236	$236
Maintenance and repairs and other materials	430	430	430
Utilities, except fuel	74	74	74
Total, except fuel	$740	$740	$740
Fuel, direct and in utilities, at 8 cents/million B.t.u.	451	451	451
Overhead, fixed charges, taxes, depreciation‡	1,661	1,683	1,623
Total cost per calendar day	$2,852	$2,874	$2,884
Credit—dollars per calendar day:			
Fuel gas	$688	$1,056	$1,416
Liquid byproducts	156	225	255
400° F. endpoint poly gasoline at 6.0 cents/gal.	5,310	6,220	6,615
Total product credit	$6,154	$7,501	$8,286
Finished polymer gasoline, bbl./cal. day	2,108	2,465	2,621
No-profit cost field butane, dollars/cal. day	$3,302	$4,627	$5,402
Butane charge, gal./cal. day	214,000	286,500	339,000
No-profit value butane, cents/gal.§	1.545	1.615	1.595

*All barrels as 42's. †Unfinished. ‡Depreciation based on 10.5-year payout; item also includes polymer-gasoline finishing. §In poly-plant feed tanks.

ing comments regarding Table 6 should be borne in mind:

(*a*) Butane values are in the feed tanks of the poly unit and therefore include costs involved in the gathering system and in transportation from the field to Baytown.

(*b*) Values are based on a 10.5-year writeoff of capital cost. With other things constant, a more rapid capital writeoff decreases the value of butane.

(*c*) Poly gasoline value is taken at 6 cents per gallon. This value will vary widely from one location to another. At Baytown, if gasoline be taken at 5 cents per gallon, butane value becomes, for 8,000 bbl. per day of butane charge, 1.25 cents per gallon, and, correspondingly, at 6 cents per gallon for gasoline, the butane value is 1.615 cents per gallon. From these figures it is clear that the value of butane is extremely sensitive to price changes in gasoline.

(*d*) Values of fuel gas, gas oil, tar, and naphtha bottoms from rerunning are taken at the local Baytown refinery values.

The principal features of this thermal polymerization unit are shown on the flow diagram, Chart 3. The fresh feed stock is introduced into the side of the stabilizer to drop out pentanes and heavier accidentally carried in the fresh feed. The butane and lighter are carried overhead with the recycle stock into the furnace-feed accumulator. The furnace charge is preheated by con-current and countercurrent exchange against the furnace-outlet stream. The flow through the furnace is single pass—first through the radiant section, then con-current through the convection section for soaking. The transfer line then leaves the furnace through the above-mentioned exchangers, after which the pressure is released and the material continues through a set of reboiler exchangers, a set of tower-feed exchangers, and a water-cooling section into the deethanizing tower. The deethanized bottoms pass through the tower-feed exchangers into the side of the stabilizer. The recycle material passes overhead with the fresh feed stock, where it is condensed and used as reflux on the tower, and the heavy polymer drops to the bottom. The bottom of this tower is reboiled by circulation through the transfer-line reboiler exchangers.

The stabilized bottoms pass to the rerun tower, where the overhead light polymer is vapor-phase clay-treated and the heavy polymer or tar is taken off the bottom. The bottom of the tower is reboiled in the economizer section of the furnace.

It will be noted that no low-temperature recovery system is employed, recovery being limited to that obtained by cooling water temperatures and a pressure of 900 lb. per sq. in on the deethanizer.

Typical operating conditions are listed in Table 7.

TABLE 7—OPERATING CONDITIONS OF BORGER UNIT

Quantities:		
Gross fresh feed, b.p.d.		2,500
Furnace charge, b.p.d.		9,000
10-lb. R.v.p. 400 endpoint poly gasoline, b.p.d.		875
Gas, oil, and tar		75
Residue gas, cu. ft. per day		2,300,000
Temperatures and pressures:	Temperature (°F.)	Pressure (Lb./sq. in.)
Furnace-inlet stream:		
Furnace-charge-pump-discharge	100	2,400
Furnace inlet	550	.....
Furnace-outlet stream:		
Radiant-section outlet	1,030	.....
Soaking-section outlet	1,025	1,850
Outlet transfer-line exchangers	675	1,800
Deethanizer:		
Feed inlet	225- 240	800
Top	130- 150	.....
Stabilizer tower:		
Feed inlet	350	275- 300
Top	175- 190	.....
Reboiler	395- 425	.....
Gasoline tower:		
Top	390- 420	25
Bottom	595	.....
Furnace-feed accumulator	100	275- 300

Table 8 gives the economics of the Borger operations. These figures have been prepared from information from the Phillips Petroleum Co. and, consequently, are of value only as applied to this particular situation. Although the records do not segregate overhead, fixed charges, taxes, and depreciation to the separate parts of the refinery, an equitable approximation for such charges at normal rates has been made. The no-profit value of butane after all charges, including this allocation, of 0.602 cent per gallon is substantially the true net value at Borger. It is not possible to compare the Baytown and Borger economics since account-

TABLE 8—GENERAL ECONOMICS OF BORGER UNIT

Gross fresh feed, bbl./stream day	2,500
Furnace charge rate, bbl./stream day	9,000
Gross fresh feed, bbl./cal. day	2,375
10-lb. R.v.p. poly gasoline, bbl./cal. day	832
Heavy polymer (fuel oil), bbl./cal. day	71
Surplus fuel gas, M.c.f./cal. day	760
Cost—dollars per calendar day:	
Labor (operating, maintenance, cleanout)	$112.00
Utilities, except fuel	32.00
Supplies and material	66.00
Service units	200.00
Total cost per calendar day, except overhead, fixed charges, taxes, depreciation	$410.00
Credit—dollars per calendar day:	
Surplus fuel gas at 2 cents per M.c.f.	$15.00
Fuel oil (heavy polymer)	45.00
Gasoline at 5 cents per gal.	1,680.00
Total product credit	$1,740.00
Net butane value operating basis, dollars/cal. day	$1,330.00
Allocated—overhead, fixed charges, taxes, depreciation (3-year basis), dollars/cal. day	729.00
Net value of butane after operating charges, dollars/cal. day	601.00
Gallons butane per calendar day	99,750
No-profit value of butane, cents/gal.	0.602

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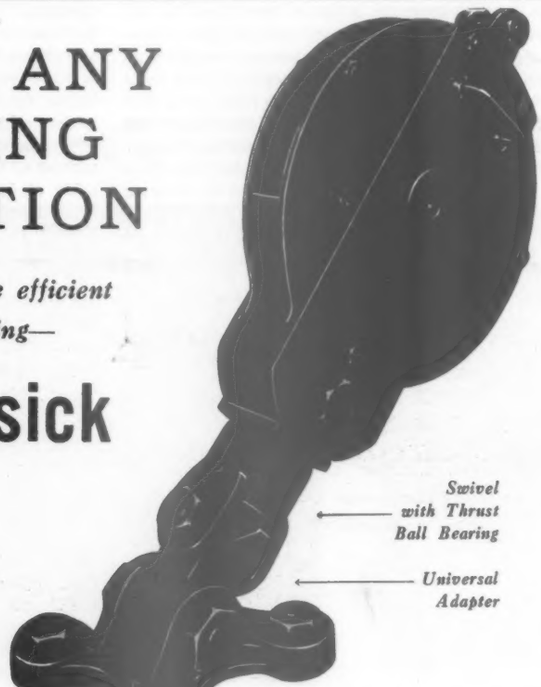

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W. A. Hammann, Shreveport, La.
Fred S. Dewel, Mt. Vernon, Ill.
F. B. Dilley, Torrance, Cal.
A. V. Simonson, New York City

ing methods and value of gasoline differ so widely. Qualitatively, it is evident that butane has much lower value at Borger than at Baytown—this being true because of the value of 6 cents per gallon for poly gasoline at Baytown, as against 5 cents at Borger. Also economics differ at these two plants since at Baytown fuel gas is given a value of 8 cents per million B.t.u., while at Borger this has a value of only 2 cents per M.c.f.

It has been attempted earlier in this paper to show from actual experience, operating results, type of equipment required, and general economics, the possibility of extremely varied modifications of thermal polymerization to suit local conditions. On the basis of these considerations, it is proposed now to present some further discussion of a suggested design felt to be especially applicable to relatively small installations and at natural-gasoline plants. In view of earlier discussions, it is apparent that it is not possible to make rigid statements as to the minimum quantity of feed stock which might economically be considered. This minimum size will depend upon:

1. Value of available feed stock.
2. Proportions of propane and butane in feed.
3. Value of products.
4. Utility and labor considerations, as well as other special local conditions.

With regard to size it will be recalled that it has been mentioned that a plant having a product capacity of 2,000 gal. per day has been designed and is in actual operation. It is probably true that for many locations this capacity would prove too small for economic consideration.

As an example of this use of thermal polymerization, it may be of interest to compare somewhat in detail a case which has been carefully studied. This involves the production of 400 gal. per day of 10-lb. R.v.p. poly gasoline and requires the supply as liquid feed of 40,000 bbl. per day of butane. This specific case is predicated upon processing only the butanes. In other words, while the liquid feed stock may contain considerable percentages of propane, some ethane and traces of methane, the plant is designed in such fashion that no appreciable product is formed from any part of the feed except the butane. This flow sheet, Chart 5, contemplates no recovery of recycle except that provided by ordinary cooling water.

The residue gas from the plant contains a considerable amount of propane and some butane. It is felt that in many casinghead plants it would be highly economic to pass this residue gas through existing absorbers or other recovery equipment, thereby returning in the feed stream to the unit considerable parts of the propane and butane discarded from the polymerization unit proper. Obviously, the recovery to be employed in respect to this residue gas will depend upon the local situation at the natural gasoline plant. The quantity of fresh feed given above contemplates that at the casinghead plant some propane and butane would be recovered and returned to the poly unit.

The partially stabilized gasoline produced from this unit as designed would have a vapor pressure of approximately 35-40 lb.; consequently, this material contains considerable excess butane and small amounts of propane. This product may be processed in one of two ways:

1. It may be charged to an existing stabilizer at the casinghead plant. In this manner the gasoline product will consist of a mixture of thermal polymerization gasoline and of casinghead. Operating in this fashion permits the sale of that additional butane which is used to increase the pressure of the thermal poly gasoline from 10-lb. Reid to the desired finished vapor pressure. In other words, the capacity of 400 bbl. per day for this unit is predicated upon production of 10-lb. R.v.p., and this capacity is increased by whatever added butane is used for any higher vapor pressure. For example, at 26-lb. R.v.p., an additional 200 bbl. per day of butane is made available for sale.

2. If the quality of the thermal polymerization gasoline, as contrasted with the natural gasoline, is sufficient to warrant it, an additional small stabilizer may be employed. In this case the thermal polymerization gasoline is produced as a separate product and obviously may be made of any desired vapor pressure. The plant design given here does not include the individual stabilizing equipment for the thermal polymerization gasoline.

Fresh feed quantity and plant capacity are predicated on the assumption that the excess butane and propane in the product, above that required for 10-lb. R.v.p., shall be returned to the poly unit in liquid form.

For this plant, as outlined, the utility requirements are approximately as follows:

Steam (175-lb. pressure)	4,500 lb./hr.
Water (max. temp. 85° F.)	3,000 g.p.m.
Fuel gas	1,300,000 cu. ft./day
Electricity	15 kw. (lighting only)

This plant design assumes that fuel gas will have very low value and that electricity is either expensive or not available in considerable quantity; consequently, an effort has been made to use no electrically driven equipment, and to minimize steam requirements. Gas is used for power purposes wherever possible. Fuel-gas quantity given above does not include that required to produce necessary steam, but does include all other uses of fuel gas.

The products from this plant are:

1. Gasoline.

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"Bill" Morgan will continue to represent us and will maintain offices with Lucey Products Corp.
MURPHY Diesels

2. Gas and fuel oil.

3. Residue gas.

The properties of gasoline, if produced as 10-lb. R.v.p., have been completely given earlier in this paper and will not be repeated here. It is expected that gas and fuel oil will be produced in the amount of about 650 gal. per day and that this will include all material having a higher boiling point than 400 endpoint. Its gravity will be 18°-20° A.P.I. Residue gas from the plant will amount to approximately 1,900,000 cu. ft. per day and is produced at 500-lb. pressure.

Installation costs of a plant of this capacity and this design will vary markedly from one location to another. It is expected, however, that the plant capital cost, exclusive of royalty, will lie between $600 and $700 per daily barrel of 10-lb. R.v.p. product.

From previous discussion it is evident that economics for this case will depend very largely upon the value of feed stock and the value of the product produced. The plant is extremely simple in its design and, based upon experiences previously outlined, it is felt that not more than two operators per shift would be required for it. It is difficult to give economic statements which will have general applicability, but Table 9 shows what may be expected at many casinghead plants.

TABLE 9—POLYMERIZATION UNIT AT NATURAL GASOLINE PLANT

Gross fresh feed, gal. butane/operating day	40,000				
10-lb. R.v.p. 400 endpoint, gal./operating day ...	17,000				
	Cents per gallon				
Value of 10-lb. R.v.p. 400-end-point gasoline	4	4.5	5.0	5.5	6.0
Value of butane	0.36	0.57	0.78	1.00	1.21

Table 9 data based on the following:

(*a*) Ninety per cent time efficiency.

(*b*) Two operators per shift.

(*c*) Utilities as given above.

(*d*) No charge or credit for fuel gas or residue gas.

(*e*) Capital payoff, including royalty, of 3 years.

(*f*) No credit for gas oil or fuel oil produced.

Table 9 is intended as a general guide only, but it has been attempted to prepare it on a conservative basis, and it is believed that in many cases more favorable results might be obtained. It is, however, evident that the profits obtainable from the process are very sensitive to the value of the gasoline produced. In some cases, better financial results are available if the poly gasoline be mixed with the casinghead and sold in that manner. This requires additional butane to increase the vapor pressure, but, obviously, all of this additional butane becomes, without any processing cost, salable at the price of casinghead.

If greater capacity than that given in Table 9 be considered, better enonomics result, and, conversely, lesser capacities are less favorable—in all cases local conditions being of utmost importance. If mixtures of butane and propane are processed, capital and operating costs will increase as mentioned earlier in this paper. The decision as to whether profit will result from handling mixtures of propane and butane can only be arrived at after study of each specific case. In particular cases it has been found that processing a part of the propane is definitely attractive economically.

Summary and Conclusions

This paper may be briefly summarized as follows:

1. A general discussion of various design modifications of thermal polymerization has been presented. Five different flow sheets were included and these were compared and analyzed.

2. Relative values of butane and propane as polymerization-unit feed stocks were considered. Yields and product quality values are given. Among saturated feeds, butane is of most value, isobutane next, then propane, while ethane is of no value. The gasoline produced is of premium quality, the 400° endpoint product at 10 lb. R.v.p. having a clear octane A.S.T.M. of 78.

3. Some consideration is given to the general operation of polymerization units as evidenced by actual operating results. Usual shutown and maintenance duties are outlined as well as length of runs and time efficiency to be expected.

4. for the Baytown unit, a description of flow is given as well as a table of economics for the plant. Based on a butane charge of 8,000 bbl. per day, a 400° endpoint poly-gasoline value of 6 cents, a plant capital writeoff of 10.5 years, butane is calculated to have a value of 1.615 cents per gallon in the feed tanks at the poly plant.

5. Similarly, for the unit at Borger of the Phillips Petroleum Co., description of flow and operating conditions are given as well as economics applying at this location. Economics of Borger operation indicate a butane value of 0.602 cent per gallon, with a gasoline value of 5 cents.

6. Suggested design is given for thermal polymerization to be used at natural gasoline plants. This includes consideration of size of plant, butane and propane as feed stocks, and use of existing plant facilities. General economics are given for one case in which 400 bbl. per day of 10-lb. R.v.p. 400° endpoint poly gasoline are produced daily from 40,000 gal. of butane charge. It is indicated for this illustration that in a 3-year capital payoff butane ranges in value from 0.36 cent per gallon with poly gasoline at 4.0 cents per gallon to 1.21 cents per gallon where the 10-lb. R.v.p. 400° endpoint poly gasoline has a value of 6 cents per gallon.

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SAFETY- Well-Equipped Drilling Rig

Reduction in the hazards to the men employed in the drilling business has been through the cooperation of drilling crews and their employer, supplemented by better designed and enlarged equipment. Impromptu studies of accidents on neighboring rigs and the elimination of similar hazards on their own rig has enabled some crews to work as much as 1 year without a single accident. The determination to avoid injuries on the part of the men and employer has led to more economical operation of many drilling rigs and a reduction in the insurance rates.

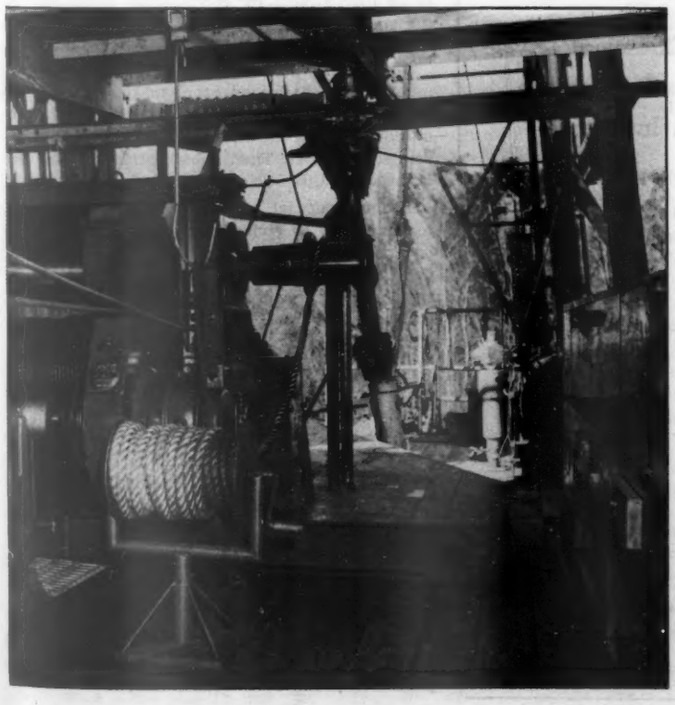
The photograph is an excellent example of what can be done on deep tests to avoid accidents. There is a fundamental difference in deep and shallow drilling, the latter being particularly conducive to accidents because proper and complete rigging up is often neglected. The difference is comparable to a camp and a permanent home.

The men have built a work bench for their tools which can be seen at the right; on its far end is a desk for the reports and log of the well. At the end of the drawworks skid is a detail which shows to what length the men will go to eliminate a hazard if they have the time and equipment. The 2- by 12-in. board is sawed circularly to fit the rounded end of the skid and prevents a workman from fouling his foot and stumbling.

Instead of loosely fitting boards being used to fill the space between the engine and drawworks, a steel grillwork is provided. Oil from the chains can escape to the ground below and the chance of a man slipping on a slick floor eliminated. The pipe at the extreme left of the photograph carries superheated steam, and the men are protected from burns by covering it with insulation.

Gasproof lights and heavily insulated light wires lessen the chance of explosion in case the well should blow in unexpectedly. The flexible steel hose seen in the background will handle very high pressures in case the well should start to flow through the drill stem when the kelly is in drilling position. In case the kelly is in the rathole and the end of the drill pipe open, the drill stem can be closed by the device seen standing in front of the retractable core barrel hoist. It is a sub with a blowout preventer and valve which can be screwed into the drill stem with the valve open and as soon as the connection is tight the valve can be closed and the well controlled. It is installed each time the core barrel is run or withdrawn.

The catline is protected by a special reel which prevents kinking and an extra detail is seen in the bent bolt extending from the top of the drawworks which supports the pull-back line. Several men have been dangerously near to serious accidents when this line became fouled in another line being used on the cathead.



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QUESTIONS ON TECHNOLOGY

By Charles K. Francis, Ph. D., Technical Editor

Oil-Burning Vessels Increasing Over Steam-Engine Boats

How many oil-burning vessels are there in operation, sailing in world service? How does the number compare with steam-driven vessels?—F. T. R.

Excluding Government-owned boats, it is estimated that there are over 2,400 ships with oil-burning engines in ocean and lake service throughout the world. The latest figures available are those for the year 1931 presented in A.P.I. Facts and Figures as follows:

Steam-engine ships, 3,484, with a gross tonnage of 19,643,936; oil-engine ships, 1,645, having a gross tonnage of 8,619,787.

The increase for the five years before 1931 was about 250 oil-burning boats per year, but this rate of increase was probably not maintained during the past five years. The increase of steam-engine vessels during the 10-year period 1921-1931 was 1,010, whereas the oil-burning ships increased 1,271.

References: Lloyds Register. U. S. Bureau of Navigation.

Determination of Carbon Residue by I.P.T. Ramsbottom Method

What is the Ramsbottom method for the determination of carbon residue in lubricating oils? Are the results similar to those found by the Conradson method? Any details about the Ramsbottom method will be appreciated.—G. O.

The Ramsbottom carbon residue test was developed by the Institution of Petroleum Technologists. The description here is that given by the institution.

The results given by this method are not comparable with those obtained by the Conradson method and is not recommended for use with residual fuel.

Apparatus.—The sheath shall be an iron tube, the closed end of which shall be flat, 3 in. in length, 1 in. in internal diameter and approximately 3/64-in. thickness of wall.

The coking bulb shall be blown from glass tubing of 1 mm. wall thickness and shall be a sliding fit in the iron sheath. One end shall be rounded and the other drawn out to a capillary of 1.5 mm. internal diameter, 9.5 mm. in length. The distance from the base to the shoulder of the bulb shall be 38 mm. and the overall length from the base to the tip of the capillary shall be 57 mm.

Method.—The sheath shall be maintained at a constant temperature of 550° C. (1,020° F.) in a bath containing such a quantity of molten metal (lead) that the bottom of the sheath shall be 1 in. from the bottom of the bath. So long as not less than 2⅜ in. of the metal sheath are immersed in the molten metal, the sheaths may be suspended in the bath by any suitable means. The temperature shall be measured by a reliable pyrometer, accurate to ±5° C., which shall be placed in the bath as near as possible alongside the sheath, the end being not less than 1 in. from the bath bottom. It is desirable that the pyrometer stem be fitted with a quartz or thin metal sheath as protection against the deteriorating effect of the molten metal, and when using the type of pyrometer where the cold junction is at room temperature a zero adjustment should be made before each experiment. The recording instrument shall be protected from the heat radiated from the bath.

A clean bulb shall be weighed and 3.75 to 4.25 g.* of the oil introduced, the bulb being conveniently filled by inserting a glass capillary, suitably bent, and applying suction while the end of the capillary is inserted in the oil.

The bulb containing the oil shall be placed in the sheath and shall be removed 20 minutes afterwards. The bulb shall be reweighed when cool, care being taken to remove any small particles of adhering metal before weighing.

Reference: I.P.T. Standard Methods for Testing Petroleum and Its Products, 3d ed., p. 35, 1935.

*For cylinder oils, the quantity of the sample shall not exceed 2 g. The test shall be rejected if there is evidence of the oil having frothed or escaped from the bulb.

Independent Operators and Major Oil Companies Defined

The question of a proper definition of the terms "independent operators" and "major oil companies" has arisen and we turn to you for a solution of our problem. Will you please give us your definition of these terms?—P. M. B.

"Independent operators" is the term applied to individuals, etc., engaged in the production of oil, who have no legal or official connection with a completely integrated company.

A "major oil company" is one engaged in all departments of the petroleum industry; that is, a completely integrated company and one with extensive operations requiring large capital and personnel.

Physical and Chemical Laws and Principles Used in the Petroleum Industry

THE MOLECULAR OR MOLAL VOLUME

(Volume of one mol)

One gram mol of gas measures 22.4 l., and 1 lb. mol has a volume of 359 cu. ft. at 32° F. and the normal pressure. At the temperature of 60° F. the volume is 379 cu. ft. These constants are convenient when making calculations involving solids, liquids, and gases, for they may be reduced to the same unit, the mol.

A familiar fact is the weight of 1 gal. of water, which is 8.328* lb. at 60° F. Then 8.328/18 = 0.463 mols to the gallon. Also, a volume of 1,137 cu. ft. of methane represents 3 mols at 60° F., from 1,137/379 = 3. From the mol and gram or pound-molecular-volume it is possible to interchange weights and volumes.

*This weight is the one used by the federal Bureau of Standards in the National Standard Petroleum Oil Tables, Cir. 154 and C 410.

Alkylation Process for Producing High Octane Fuel

A new kind of cracking process has been mentioned which is called the "Alkylation Process". Will you kindly explain what is the meaning of alkylation and give a description of the process?—H. F. P.

The first method for the synthesis of gasoline involved the splitting of the large molecule, as found in gas oil, to produce smaller ones, some of them being gasoline compounds. This is the essential part of the cracking process. It was taking apart as contrasted with building action.

For many years large quantities of gas formed in the cracking operation have been considered "gas loss," the only use made of it being to burn it for fuel. The refinery gas and the resdue from the natural gasoline plants are similar in composition, including molecules of relatively small size, some of which are unsaturated compounds, much smaller than the hydrocarbons that are combined in gasoline. Several methods have been invented for combining and saturating such molecules to produce gasoline. They may be considered as building methods; alkylation is one.

The alkyl groups or radicles, are well known to all students of organic chemistry, which is largely the chemistry of petroleum, the part dealing with the compounds of carbon and hydrogen, the hydrocarbons. The name alkyl, derived from alcohol, is applied to all groups which, according to theory, may be obtained by extracting one atom of hydrogen from such compounds as methane, ethane, propane, butane, pentane, etc.; the resulting substances being called methyl, CH_3-; ethyl, C_2H_5-; propyl, C_3H_7-; butyl, C_4H_9-; pentyl, C_5H_{11}, etc. the *ane* of the first name being changed to *yl* for the second, or alkyl compound. These are hypothetical substances which do not exist; being used simply for convenience when discussing chemical structure or changes involving such groups.

Alkylation may be illustrated by the replacement of one hydrogen atom in the water molecule with the ethyl radicle, resulting in the formation of ethyl alcohol, thus: Water may be indicated by HOH. Then substituting C_2H_5 for one H, becomes C_2H_5OH, or ethyl alcohol.

The commercial alkylation may be explained, for example, as combining one molecule of isobutane, $(CH_3)_3CHCH_3$, with one of butylene, $C_2H_5CHCH_2$, to make isooctane, $(CH_3)_3CCH_2CH$. Reducing each to the simple molecular formula, $C_4H_{10} + C_4H_8 = C_8H_{18}$ isooctane is obtained by addition.

The process operates in the presence of sulfuric acid at low temperature and pressure.

It is reported that the alkylation process charging 120 bbl. isobutane and 100 bbl. of butylenes yields about 190 bbl. of distillate, designated alkylate, from which may be obtained the products as shown in the table.

COMPOSITION OF ALKYLATE

	Per cent
Aviation gasoline (92 oct. and 311° F. e.p.)	85
Naphtha (400° F. e.p.)	10
Residue	5

The aviation gasoline blended with 35 per cent 72-octane fuel and 3-ml. lead to the gallon, is reported to produce 100-octane fuel.

FIELD OPERATIONS

Summarizing the Week's Developments

KANSAS—Four large producers were completed in the Hittle pool, Cowley County. Productive area of the Geneseo field, Rice County, was extended one location southward, and the Wherry pool in the same county was extended ½ mile southeastward. An extension well ½ mile south of Roxbury pool, McPherson County, was completed.

OKLAHOMA—A Seminole County wildcat that recently opened a new producing area in the Little River district was completed, flowing 148 bbl. in 7 hours. Work was started at an offset to the Gled-Tarr discovery well in Kiowa County.

ILLINOIS—With production mounting daily and making new records for the state, the largest well of the week was a 5,581-bbl. producer in the Salem pool in Marion County. Sixty-three new oil wells were completed, but 85 new operations were started.

MICHIGAN—The state broke its production records for a month, in May, with a total of 2,076,282 bbl., or 66,993 bbl. per day, and is maintaining that average this month. Last week saw an unusual crop of dry outposts and wildcats. A 3,200-bbl. well was the best of nine new oil wells. It was in the Redding pool in Clare County.

TEXAS: Gulf Coast—A new production area was opened on the east flank of the Dickinson, Galveston County, field. A very promising wildcat in Jefferson County was near completion. The Eureka field was defined on the north.

Southwest Texas—The sixth pool opened in Jim Wells County is on the Frio-Vicksburg trend. It has been named the Reynolds field. It is 3 miles south of Orange Grove. Six wildcats were started in Nueces County.

West Texas—Gulf Oil Corp. completed a 13,638-bbl. well in Crane County on the Waddell ranch. The Crockett pool in Crockett County has prospects of a pipe line outlet. Twenty-four permits to drill in the Foster pool in Ector County were granted.

West Central Texas—In the Ivy pool of Shackelford County a 6,000- to 6,500-bbl. well is indicated, the well having flowed 135 bbl. in 25 minutes from Palo Pinto lime. Another well in the pool flowed 100 bbl. in 30 minutes. Wildcats in Jones County are giving good indications of production.

North and Eastern Texas—Wildcats in Archer, Clay, Montague, Baylor, Wichita, Titus, Rusk, Anderson, Limestone, and McLennan counties are keenly interesting to oil men. Mabank pool and Navarro Crossing pool, both in Henderson County, are being slowly developed.

TEX-LA-ARK—The Magnolia field in Columbia County was being extended on three sides by wells not yet in the completion stage. North Louisiana was quiet, but in southern Louisiana the Villa Platte pool, in Evangeline Parish, was enlarged by a producer on the extreme eastern side of the field. The oil is 53.9° in gravity.

MONTANA—The first commercial production from the Sunburst sand in the Cut Bank, Montana, field was recorded in a well that swabbed 516 bbl. a day from the Sunburst and Cut Bank sands.

Completions in All Fields

(Week Ending June 17, 1939)

	Oil	Gas	Dry	Total	1939 total comp. to date	1938 total comp. to date
N. Y., Pa., and W. Va.	53	9	1	63	1,412	1,875
Ohio	6	10	4	20	424	429
Indiana	0	0	0	0	105	42
Kentucky	2	0	1	3	281	370
Illinois	63	0	10	73	1,563	475
Michigan	9	3	16	28	593	364
Kansas	20	1	8	29	529	820
Oklahoma	29	5	9	43	838	827
Texas:						
North Central Texas	39	0	19	58	1,101	1,479
West Texas	36	1	2	39	869	1,080
Texas Panhandle	4	3	0	7	177	295
East Texas	9	0	0	9	240	1,035
East Central Texas	3	0	2	5	120	165
East Texas Border	1	0	0	1	32	80
Gulf Coast Texas	15	2	8	25	637	594
Southwest Texas	18	0	15	33	1,090	1,000
Total Texas	125	6	46	177	4,266	5,728
North Louisiana	2	1	1	4	243	279
Gulf Coast Louisiana	12	2	7	21	263	222
Total Louisiana	14	3	8	25	506	501
Arkansas	3	0	3	6	112	120
Montana	3	0	2	5	63	39
Wyoming	1	0	1	2	43	77
Colorado	0	0	0	0	4	5
New Mexico	14	1	0	15	275	268
Utah	0	0	0	0	0	0
California	11	1	4	16	429	621
Total United States	353	39	113	505	11,443	12,561
Total previous week	353	63	97	513		
Week ending June 18, 1938	364	53	80	497		

Outstanding Fields—Highlights

(Week Ending June 17, 1939)

FIELD—	Rigs up	Wells drlg.	Weekly oil completions	Initial prod.	Total No. oil wells	Daily av. prod.
TEXAS						
K.M.A.	19	55	11	7,139	1,019	24,698
Wasson-Bennett	19	47	8	6,662	312	15,011
Ector County	8	52	8	9,141	1,724	40,786
Pecos County	15	33	7	1,581	1,140	30,350
Jones County	11	24	5	6,366	502	8,000
East Texas	0	29	9	497	25,916	372,548
OKLAHOMA						
St. Louis	5	26	6	1,831	840	36,250
Ramsey	1	1	1	852	31	4,350
KANSAS						
Barton County	2	15	1	449	432	12,700
Ellis County	1	16	0	0	385	9,985
Rice County	5	29	5	1,383	1,333	32,721
Russell County	6	32	5	2,726	1,249	23,050
NEW MEXICO						
Lea County	6	66	12	1,916	2,150	108,950
LA-ARK-TEX						
Magnolia, Ark.	4	11	1	430	30	8,170
Cotton Valley, La. (deep)	0	7	0	0	131	13,430
MICHIGAN						
Freeman-Redding	4	32	1	3,200	86	13,992
Kent County	5	21	3	1,070	51	4,821
CENTRAL ILLINOIS						
Salem field	6	101	27	16,150	964	131,850
Louden field	5	89	23	4,002	885	46,600
Other areas	26	200	13	3,197	1,376	48,788
CALIFORNIA						
Wilmington	5	18	5	2,818	642	80,250

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By STAFF CORRESPONDENT

5,500-bbl. Well in Salem; 85 New Operations in State

MATTOON, Ill., June 19.—There were 85 new operations started in Illinois fields in the past week, while 63 new oil wells were completed and 10 dry holes abandoned. The largest well of the week was drilled by W. C. McBride, Inc., in the Salem field in Marion County. It produced 5,581 bbl. in 24 hours. Other wells good for 2,400 bbl., 2,520 bbl., and 1,321 bbl., were finished in McClosky lime in the same field.

The Gulf Oil Corp.'s important test in Franklin County, which at one time was reported to be looking like a pool opener, was abandoned as dry. The well was known as No. 1 G. W. Baldwin, SE SE NW Section 4-1n-1w, 2½ miles northwest of Irvington. It was drilled to 1,866 ft. It had a small showing of oil in the first break in the McClosky lime at 1,705-12 ft.

Just 360 ft. east of the Niagaran discovery well in the old Sandoval pool, north of Centralia, Menhall's deep test on the Benoist farm had casing set at 2,900 ft., and was soon to show whether or not the first Niagara (or Devonian) lime well in the field was producing from a pimple or was really the opening well from a deep pay of some extent. The Southwestern Oil Co. opened the deep production last fall with the lime formation topped at 2,920 ft. May Pray's dry hole north of the discovery well threw a damper on the field and it was followed by another dry hole in Menhall's No. 1 Illinois Central, west of the original well.

Last week's crop of producing wells includes a small gas well in Macoupin County at a shallow depth; 23 oil wells in Fayette County with a total initial production of 4,002 bbl.; 27 wells in Marion County with 16,150 bbl. initial production. Other completions and their total initial production included three in Clay County, 927 bbl.; one in Richland County, 41 bbl.; six in Wayne County, 1,936 bbl.; one in Wabash County, 208 bbl., and two in St. Clair County, 85 bbl.; total 63 wells with 23,349 bbl. initial output. As in other weeks a considerable percentage of the wells completed in the Salem and Louden fields were permitted to produce only a short time on their first day, which cut down the initial records of the fields. Two dry holes were completed in Wayne County and one dry hole each in Sangamon, Franklin, Cumberland, Fayette, Bond, Clay, Crawford, and Lawrence counties, 10 in all.

Following were the completed wells and their initial output, which represents 24 hours, unless otherwise noted:

In Macoupin County, American Petroleum Co. No. 1 Kohl, SW cor. SW SW NW Section 22-8n-8w, had sand at 425-72 ft., and yielded 250,000 cu. ft. of gas the first 24 hours.

In Sangamon County, Millar and others No. 1 Sample, NW SE Section 11-15n-3w, St. Peter sand 2,676 ft., white sand at 2,703 ft., hard blue sand 2,703-30 ft., total depth; drill stem twisted off; abandoned.

In Cumberland County, Culpepper No. 1 Gardner, SE SE NE Section 2-10n-10e, dry and abandoned at 730 ft.

In the Louden field in Fayette County, Carter Oil Co. No. 2 A. Sloan, SW SE SE Section 2-8n-3e, shot with 30 qt. at 1,534-48 ft., acidized casing opposite 1,468-74 ft., and shot sand with 20 qt., flowed 48 bbl. in 8 hours, rated at 138 bbl. a day. Carter No. 2 H. Stead, SW NW NW Section 13-8n-3e, Cypress sand 1,495-1,536 ft.; shot with 80 qt., pumped and flowed 589 bbl. in 24 hours, later flowed 254 bbl. in 8 hours through tubing, rated at 642 bbl. a day. Carter No. 2 Lem Lilly, NE SE SW Section 14-8n-3e, Bethel sand at 1,539-46 ft., shot with 40 qt., flowed 283 bbl. in 8 hours, rated at 700 bbl. a day. Whisenant and others No. 10 Lilly, SE SE SW Section 16-8n-3e, shot with 40 qt. at 1,486-1,503 ft., flowed 184 bbl. Carter Oil Co. No. 1 Presbyterian Church, NE SE NE Section 21-8n-3e, Bethel sand at 1,572-91 ft., shot with 30 qt., Cypress sand at 1,475-97 ft., shot with 40 qt., flowed 48 bbl. through tubing. Carter No. 4 Wright, NW NW NE Section 21-8n-3e, shot with 40 qt. at 1,572-85 ft., stray sand, swabbed 175 bbl. in 22 hours. Carter No. 2 Logue, NE NW SW Section 22-8n-3e, shot Bethel sand at 1,487-93 ft., ripped casing at 1,397-1,423 ft. and 1,445-61 ft., swabbed 83 bbl. in 12 hours, then shot Cypress sand at 1,371-81 ft. and flowed 60 bbl. of oil and 2,950,000 cu. ft. of gas. It is believed the gas pressure is holding back the production. Carter No. 3 Williams, NE SE NE Section 22-8n-3e, shot with 10 qt. at 1,577-80 ft. and with 30 qt. at 1,473-83 ft., flowed 125 bbl. in 8 hours. Carter No. 2 W. L. Smith, SW NW NW Section 23-8n-3e, shot with 10 qt. at 1,581-84 ft., and with 30 qt. at 1,490-99 ft., flowed 126 bbl. in 8 hours. Babcock No. 1 Rhode, SW NE SE Section 27-8n-3e, stray sand at 1,549-75 ft., shot with 60 qt. on bottom, swabbed 118 bbl. Pane and McClean and others No. 1 fee, NW cor. SE Section 27-8n-3e, shot with 27 qt. at 1,575-85 ft., pumped 120 bbl. Pane & McClean and others No. 3 P. McClean, C W½ W½ Section 27-8n-3e, stray sand at 1,564-88 ft., shot with 8 qt., and 20 qt., pumped 80 bbl. Paul Doran No. 1 Goetting, SW NE NW Section 32-8n-3e, Bethel sand at 1,590-93 ft., shot with 20 qt., and Cypress sand 1,473-93 ft., shot with 20 qt., pumped 135 bbl. Carter No. 4 J. Dial flowed 152 bbl. in 8 hours, producing from Cypress sand at 1,442-1,510 ft. and stray sand at 1,572-76 ft., the latter sand shot with 20 qt., flowed 152 bbl. in 8 hours. Carter No. 5 J. Dial, NE SE NW Section 33-8n-3e, swabbed 146 bbl. in 8 hours from Bethel sand at 1,544-68 ft. and Cypress at 1,442-98 ft., estimated at 504 bbl. a day

Jarvis Brothers No. 11 Homan B, SE SW SE Section 29-7n-3e, Cypress sand at 1,570-79 ft., pumped 5 bbl. of oil and 25 bbl. of water. Carter Oil Co. No. 8 Lewis Ripley, NE NW NW Section 29-7n-3e, Cypress sand at 1,545-72 ft., shot with 20 qt., swabbed 136 bbl. Stewart Oil Co. No. 4 McPhelters, SE NW SW Section 28-7n-3e, Cypress sand at 1,568-85 ft., shot with 40 qt., pumped 35 bbl. Carter No. 4 Coddington, SE SW SW Section 20-7n-3e, sand at 1,535-62 ft., shot with 40 qt., swabbed 474 bbl. Central States No. 4 McKenzie, SE SE SE Section 20-7n-3e, sand at 1,541-56 ft., shot with 20 qt., pumped 278 bbl. W. C. McBride, Inc., No. 4 Sapp, SW NW SW Section 18-7n-3e, Cypress sand 1,517-57 ft., shot with 60 qt., swabbed 18 bbl. per hour for 6 hours, estimated at 277 bbl. a day. Carter Oil No. 1 Finch, NE NW SE Section 4-7n-3e, shot with 40 qt. at 1,535-50 ft., Cypress sand, pumped 35 bbl. Max Conrey No. 1 Malan, NE SW SW Section 24-4n-1w, a wildcat, was dry and abandoned at 1,432 ft.

In Bond County, Kesl and others No. 1 Salthoff, NE NE NW Section 12-6n-5w, St. Peter sand 3,143-54 ft., filled up 2,500 ft. with salt water in about 1 hour; abandoned.

In Clay County, Riley and others No. 1 Smith, NW cor. NE NW Section 21-5n-5e, dry and abandoned at 2,340 ft. Aux Vases sand at 2,331-38 ft. Orchard Oil Co. No. 1 Norton, C NE NW Section 18-2n-8e, Rosiclair pay at 2,996-3,007 ft. and 3,013-15 ft., flowed 215 bbl. through 2-in. tubing with ¼-in. choke. Pure Oil Co. No. 5 E. R. Priestman A, NW SW NW Section 5-2n-8e, Fredonia pays at 3,018 to 3,110 ft. at intervals, flowed 105 bbl. after a 5,000-gal. acid treatment. Pure No. 2 Taylor Consolidated, C W½ NW NW Section 8-2n-8e, Fredonia pays from 2,996 to 3,055 ft. at intervals, acidized with 5,000 gal., flowed 607 bbl.

In Crawford County, Denver Producing & Refining Co. No. 1 White, NW NW NE Section 2-5n-14w of second principal meridian, McClosky lime at 2,646-50 ft., total depth 2,664 ft., dry and abandoned.

In Richland County, Pure Oil Co. No. 1 M. Jorgenson A, SE SE NW Section 23-4n-9e, Cypress sand at 2,594-2,607 ft., pumped 41 bbl. a day.

In Marion County, Arthur Harvey No. 2 Marion Building & Loan Association, McClosky lime at 2,153 ft., total depth 2,180 ft., acidized with 2,000 gal., pumped 175 bbl. of oil and 3 bbl. of water. Texas Co. No. 18 Jett, C S½ SW SW Section 16-2n-2e, McClosky at 1,985-2,048 ft., acidized with 3,000 gal., flowed 45 bbl. in 3 hours, rated at 135 bbl. a day. Texas No. 19 Jett, SE SW SE Section 16-2n-2e, Benoist sand at 1,854-70 ft., pumped 8 bbl. in 3 hours, rated at 56 bbl. a day. Texas No. 2 E. Shanafelt, NE SE NW Section 16-2n-2e, McClosky lime at 2,030-40 ft., acidized with 3,000 gal., flowed 205 bbl. in 3 hours, rated at 840 bbl. a day. Blackstock No. 4 M.&I.R.R., SW NE NE Section 20-2n-2e, McClosky lime at 1,943 ft., total depth 2,038 ft., flowed 35 bbl. in 1 hour, rated at 840 bbl. a day. Blackstock No. 4 M.&I.R.R. A, SW NE NE Section 20-2n-2e, Benoist at 1,748 ft., McClosky lime at 1,943-2,038 ft., flowed 35 bbl. in 1 hour, rated at 840 bbl. a day. Blackstock No. 3 M.&I.R.R. B, SE SW NE Section 20-2n-2e, McClosky lime at 1,925 ft., total depth 2,030 ft., flowed 35 bbl. in 1 hour, rated at 840 bbl. a day. Kingwood Oil Co. and Bell No. 13 J. A. Shanafelt A, C S½ NW NE Section 20-2n-2e, McClosky lime pays at 1,926 to 2,032 ft., in streaks, set 7⅛-in. casing at 2,032 ft., perforated casing with 189 shots and acidized with 3,000 gal., flowed 2,400 bbl.

Magnolia Petroleum Co. No. 37 J. H. Young, SE NE SE Section 20-2n-2e, Bethel sand at 1,743-68 ft., shot with 130 qt., flowed 624 bbl. Magnolia No. 39 Young, NE NE SE Section 20-2n-2e, McClosky lime at 1,925-2,060 ft., flowed 600 bbl. Magnolia No. 41 Young, SE NE SE Section 20-2n-2e, McClosky lime at 1,921-2,040 ft., flowed 1,321 bbl. naturally. Texas No. 2 D. Hester, NW SE NE Section 21-2n-2e, Benoist sand at 1,846-53 ft., pumped 5 bbl. in 3 hours, rated at 35 bbl. a day. Texas No. 11 Lee, SW cor. NE SE Section 28-2n-2e, McClosky lime at 1,934-2,033 ft., acidized with 3,000 gal., flowed 561 bbl. W. C. McBride, Inc., NE NE SE Section 29-2n-2e, McClosky at 1,921-2,031 ft., acidized

Illinois Fields

HIGHLIGHTS OF THE WEEK: W. C. McBride, Inc., completed a 5,581-bbl. McClosky lime well in the Salem pool, which was the largest completion of the week in the state. A Devonian test in the old Sandoval pool in Marion County was arriving at a critical stage. It is 360 ft. east of the Devonian discovery well, which came in last fall. Oil is still going out of the Central basin fields at the rate of about 54,000 bbl. per day on an average of 33 cents per barrel under the highest posted price of $1.05. Pure Oil Co. met the recent 10-cent reduction in the posted price of crude. Eighty-five new operations were started in the field during the past week.

Daily average production of new fields, 227,228 bbl.; old fields, 7,288 bbl.; total, 234,516 bbl.

Total operations including locations, rigs and wells drilling, 458.

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with 5,000 gal., flowed 5,581 bbl. in 24 hours. Ohio Oil Co. No. 6 M. J. Young, NW NE NW Section 29-2n-2e, Benoist sand at 1,790-1,818 ft. and Aux Vases at 1,874-96 ft., each shot with 40 qt., flowed 222 bbl. in 5½ hours. Texas No. 10 McCollum, NE SE SE Section 29-2n-2e, McClosky at 1,955-2,027 ft., acidized with 4,000 gal., flowed 360 bbl. in 3 hours, rated at 2,520 bbl. a day. Texas No. 3 J. McConnoghay A, NW SE SE Section 32-2n-2e, Benoist at 1,769 ft., total depth 1,821 ft., flowed 63 bbl. in 3 hours, rated at 441 bbl. a day. Texas No. 5 Mac Roberts, SW cor. SE NE Section 32-2n-2e, Benoist at 1,733-90 ft., shot with 25 qt., flowed 93 bbl. in 3 hours through casing, rated at 665 bbl. a day. Texas No. 10 M. T. Williams, SE NW SW Section 32-2n-2e, Benoist at 1,679 ft., total depth 1,730 ft., flowed 80 bbl. in 3 hours, rated at 560 bbl. a day. Ohio Oil Co. No. 14 Lloyd, SW NW NE Section 33-2n-2e, Benoist at 1,814-64 ft., shot with 40 qt., flowed 300 bbl. Texas No. 4 E. Farthing B, NE SE SE Section 33-2n-2e, Benoist at 1,917-30 ft., pumped 14 bbl. in 3 hours, rated at 98 bbl. a day. Texas No. 8 Barker, NW cor. SE NE Section 33-2n-2c, Benoist at 1,820-62 ft., shot with 20 qt., flowed 37 bbl. in 3 hours, rated at 260 bbl. a day.

Texas Co. No. 17 Hawkins, N½ NW SE SW Section 5-1n-2e, McClosky lime at 1,946-61 ft., acidized with 3,000 gal., flowed 251 bbl. in 3 hours, rated at 1,757 bbl. a day. Texas No. 18 Hawkins, SW SE SW Section 5-1n-2e, McClosky lime at 1,956-73 ft., flowed 80 bbl. in 3 hours, rated at 560 bbl. a day. Texas No. 19 Hawkins, SE SW SW Section 5-1n-2e, Aux Vases sand at 1,813-62 ft., flowed 25 bbl. in 3 hours, rated at 175 bbl. a day. Rockhill Oil Co. No. 16 Foster, SE SE SE Section 7-1n-2e, McClosky lime at 2,047-92 ft., flowed 600 bbl. naturally in 24 hours. Texas Co. No. 1 R. Murray, NE SE SW Section 7-1n-2e, Benoist sand at 1,847-77 ft., pumped 31 bbl. in 3 hours, rated at 217 bbl. a day. Texas No. 4 B. Hawkins community, SE SE NW Section 8-1n-2e, McClosky lime at 2,035-47 ft., acidized with 3,000 gal., flowed 148 bbl. in 3 hours, rated at 1,036 bbl. a day. Texas No. 15 B. Hawkins, NW NE SW Section 5-1n-2e, McClosky lime, flowed 72 bbl. in 3 hours, rated at 504 bbl. a day, natural flow.

In Wayne County, Roche & Voyles No. 1 Sprague, Roseclair top at 3,173 ft., total depth 3,267 ft., flowed 162 bbl. in 24 hours through 12/64-in. choke.

In Wabash County, W. M. Bartlett No. 1 Stansfield, SW SE SE Section 19-2s-13w, Biehl sand at 1,713-19 ft., pumped 208 bbl.

In Wayne County, New Penn Development Co. No. 1 Baker, SE NW NW Section 21-2s-9e, dry and abandoned at 3,373 ft. Fredonia lime topped at 3,338 ft. Horn No. 1 Flanders, NW cor. NE Section 3-2s-7e, reported abandoned at 1,650 ft. New Penn Development Co. No. 1 Scott, SW cor. NW SE Section 7-2s-9e, Fredonia lime top at 3,375 ft., total depth 3,437 ft., plugged back to 3,406 ft. and acidized with 3,000 gal., pumped 30 bbl. of oil and 30 bbl. of water.

In Lawrence County, Cecil Keniff No. 1 Ridgeley, SE SW SW Section 1-2n-12w of second principal meridian, dry and abandoned at 498 ft.

In Wayne County, Pure Oil Co. No. 2 Trotter, C W½ NW NW Section 10-1n-8e, Fredonia pay at 3,055 to 3,127 ft. in streaks, acidized with 2,000 gal., pumped 38 bbl. of oil and 35 bbl. of water. Pure No. 1 Hill, C E½ SW SE Section 4-1n-8e, Fredonia pay at 3,041 to 3,095 ft. in streaks, flowed 91 bbl. in 18 hours, acidized with 5,000 gal., it flowed 718 bbl. of oil in 24 hours. Pure No. 1 W. G. McCracken B, C E½ SW NW Section 3-1n-8e, Fredonia pay at 3,028 to 3,104 ft. in streaks, acidized with 5,000 gal., flowed 897 bbl.

In Clinton County, O. S. Strickland No. 1 Cole heirs, SW NE SE Section 12-1n-1w, hole junked at 1,364 ft.

In St. Clair County, Henipen and others No. 3 Theilman, C S½ N½ SW Section 34-1n-10w, Trenton lime at 609-60 ft., acidized with 1,000 gal., pumped 35 bbl. of oil and 300 bbl. of water. Blosser and others No. 1 Eckert, C N½ S½ SW Section 34-1n-10w, Trenton lime at 701-38 ft., acidized with 1,000 gal., pumped 50 bbl. of oil and 75 bbl. of water.

In Fayette County, Carter Oil Co. No. 5 Fortner, SE SW NE Section 10-8n-3e, swabbed 350 bbl. of oil in 24 hours from stray sand at 1,573-95 ft., and Cypress sand at 1,497-1,542 ft., after both sands were shot.

In Monroe County, Thomas McNear No. 1 Miller, C NW NE Section 23-8s-6e, reported abandoned at 105 ft.

New Wildcat Operations

In Montgomery County, Jack S. Brown and others No. 1 Hefley, SW SE SE Section 4-9n-3w, moving in materials.

In Madison County, Bill Morgan and others No. 1 Niggil, NE SE SE Section 2-3n-5w, moving in materials.

In Jefferson County, Kingwood Oil Co. No. 1 Cook, C W½ SE SW Section 18-3s-4e, rig up. Shell Oil Co. No. 1 Jefferson Oil & Gas Co., NE NE SW Section 32-3s-2e, location.

In Perry County, G. H. Blankenship No. 1 Ruthowski, SE SE NE Section 13-4s-2w, moving in rotary tools.

In Franklin County, Palacine Oil Co. and others No. 1 Old Ben Coal Co., 1,300 ft. from E and 330 ft. from N lines of Section 4-5s-2e, moving in rotary tools.

In Hamilton County, Kingwood Oil Co. No. 1 Griswold, SE SE NE Section 29-6s-6e, location.

Among the Outposts

In White County, Eason Oil Co., SW SE SW Section 14-6s-9e, set 7½-in. casing at 2,968 ft. Tested salt water with a small showing of oil. Will recement pipe.

In Coles County, Perry Miller and others No. 1 Ingram, C W½ NW NW Section 16-11n-10e, set 8-in. casing at 500 ft.

In Shelby County, Kingwood Oil Co. No. 1 Howe, SE SE SE Section 7-10n-4e, St. Louis lime top at 1,923 ft., drilling at 2,150 ft. Yokey No. 1 Fluga, NW SE NW Section 34-10n-5e, total depth 2,212 ft., plugged back to 1,936 ft. and shot with 20 qt., casing collapsed; shut down.

In Clark County, E. R. Brann and others No. 1 Baughman, SW cor. NE NW SE Section 20-9n-14w of second principal meridian, total depth 1,027 ft., shut down. Harry Dunn and others No. 1 Medsker, C NE NE Section 7-9n-12w, shut down at 742 ft.

In Fayette County, E. Frank Jones No. 1 Zanders, SE cor. NW Section 36-9n-3e, tested on pump, produced 5 bbl. of oil and 35 bbl. of water, total depth 1,588 ft. Hughes Production Co. No. 2 Stinebring, SE NW SE Section 12-7n-2e, set 7-in. casing at 1,867 ft. Owners are planning to drill to Devonian. Nash Redwine and others No. 1 Logue, SE cor. NE SE SE Section 13-7n-2e, total depth 1,554 ft., will test on the pump.

In Bond County, Anderson and others No. 1 Morris, NW NW NW Section 16-6n-3w, lost hole at 420 ft., skidded 20 ft. and shut down. Devonian Oil & Gas Co. No. 1 Ambuell, NE SW NW Section 22-6n-4w, shut down for orders at 1,894 ft.

The deepest well in the state, Kingwood Oil Co. No. 1 McWhorter, C E½ SE NW Section 15-6n-6e, Effingham County, was drilled to 6,543 ft., but was plugged back to 3,028 ft. where it pumped 10 bbl. of oil and 40 bbl. of water per day. Shot with 10 qt. at 3,005-15 ft., it made 19 bbl. of oil and 40 bbl. of water. Plugged back to 2,928 ft., it swabbed 15 bbl. of oil and 55 bbl. of water in 12 hours, still testing.

In Fayette County, Giffert Drilling Co. No. 1 Garver, SE cor. NW NE Section 25-6n-2e, Glen Dean top at 1,424 ft., drilling at 1,490 ft.

In Lawrence County, Jordan No. 1 Delhan, C SE SW Section 32-5n-11w of second principal meridian, drilling at 400 ft.

In Clay County, Evans and others (formerly reported Dick Burnett) No. 1 Liggett, SW NE SE Section 17-5n-5e, total depth 2,445 ft., plugged back to 2,320 ft. and shut down. Minerva Oil Co. No. 1 John Smith, SW SW NW Section 23-5n-5e, drilled to 2,414 ft. and shut down.

In Crawford County, Downey and others No. 1 Cochran, SE SE SW Section 12-5n-12w of second principal meridian, drilling at 320 ft. Mark and others No. 1 Clay, SW SE SE Section 8-4n-10w, running surface casing. Mark and others No. 1 White, SW SE SW Section 8-4n-10w, drilled to 1,070 ft. and shut down.

In Richland County, Pure Oil Co. No. 1 Storer Consolidated, SW NW SW Section 13-4n-9e, drilling at 1,636 ft. Pure No. 1 Otis Baker, SE SW SE Section 14-4n-9e, total depth 3,049 ft., set 5½-in. casing at 2,926 ft., will acidize at 2,600-13 ft. Pure Oil Co. No. 1 Veit, SW SW SW Section 23-4n-9e, total depth 3,026 ft., plugged back to 2,605 ft., and drilled to 2,616 ft., filled up 250 ft. with salt water and 50 ft. with oil in 1 hour, testing. Pure No. 1 Storer-Sayer Consolidated, NW NW NW Section 24-4n-9e, McClosky top at 2,914 ft., total depth 2,987 ft., set 5½-in. casing at 2,897 ft., drilling plug. Pure No. 1 C. A. N. Brower A, SW NE NW Section 25-4n-9e, total depth 3,020 ft., set 5½-in. casing at 2,901 ft., "destructible" pipe set at 2,522-47 ft. and 2,572-2,603 ft. Will acidize. Charles Skinner and others No. 1 School lot, SW cor. NW SW Section 23-4n-10e, total depth 3,039 ft., 7-in. casing set at 3,024 ft., acidized with 6,000 gal., will put on pump. Andrews and others No. 1 Wattleworth, SW SW SE Section 26-4n-10e, total depth 3,132 ft., 5½-in. casing set at 3,116 ft., acidized with 1,000 and 6,250 gal., flowed 146 bbl. in 14 hours and then died; pumped 30 bbl. of oil and 5 bbl. of water in 24 hours; testing.

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Chicago, Ill.

In Bond County, Eason Oil Co. No. 1-A Land Bank, NE NE NW Section 24-4n-3w, top of Benoist sand at 1,121 ft., total depth 1,155 ft., plugged back to 1,130 ft., shot with 10 qt. at 1,125-30 ft., cleaning out.

In Marion County, Harvey No. 1-A Kagey, SE NE SE Section 33-3n-2e, McClosky lime top at 2,121 ft., total depth 2,248 ft., where 7-in. casing was set. J. Lickey No. 1 Quick, SW NW SE Section 35-3n-1e, Ste. Genevieve lime top at 1,928 ft., drilling at 1,936 ft. Miller and others No. 1 Beal, SW cor. SE NW Section 34-3n-2e, set 7-in. casing. Menhall and others No. 1 N. Benoist, C E½ NE NW Section 8-2n-1e, drilling at 2,658 ft., a Niagara lime test. Menhall and others No. 1 Hazelwood, NE cor. SW Section 8-2n-1e, shut down for orders at 1,806 ft. Ray No. 1 Shanafelt, SW cor. SE SW Section 9-2n-2e, drilling at 1,975 ft. Southwestern Oil & Gas Co., which opened Devonian lime production in the Sandoval pool, is drilling No. 22 Benoist in the same field at 940 ft., a Devonian lime test. Bowden No. 1 Martin, C S½ SW SW Section 10-2n-2e, a Devonian test, was shut down at 2,631 ft. Quincy Oil Co. No. 1 Hester, SW cor. NW NW Section 22-2n-2e, McClosky lime top at 2,112 ft., set 7-in. casing at 2,147 ft. Smith and others No. 1 Hester, SW cor. NW NW Section 22-2n-2e, drilling at 1,450 ft.

In Clay County, Pure Oil Co. No. 1 Hall, C S½ SE SW Section 19-2n-8e, set 5½-in. casing at 3,010 ft., total depth 3,085 ft., pays at 3,020-25 ft. and 3,028-32 ft. Centralia Refining Co. No. 1 Weiler School lot, SW SW SW Section 3-2n-8e, pays and showings at intervals from 2,995 to 3,021 ft., cemented 7-in. casing and will complete with standard tools. Pure Oil Co. No. 1 Molt, C W½ NW NE Section 34-1n-7e, rig up. Pure No. 1 Hubble, C W½ SW NW Section 4-1n-8e, drilling at 2,917 ft., Weiler sand at 2,635 ft.

In Clinton County, Elmer Goldschmidt No. 1 Burger, NE NE NW Section 12-2n-4w, spudded.

In St. Clair County, Pennington & Dunn No. 1 Schoene, SE SE NE Section 2-1n-6w, drilled to 725 ft. and shut down. Algona Oil Co. No. 1 Meuler, SW SE NE Section 7-1n-6w, drilling at 1,975 ft.

In Wayne County, Pure Oil Co. No. 1 Fitch, C S½ NW NE Section 10-1n-8e, McClosky top at 3,098 ft., drilling at 3,142 ft. Porter No. 1 Kleinicke, NE SE SW Section 15-2s-9e, drilling at 2,010 ft. Illinois-Mid-Continent Oil Co. No. 1, NW SW NW Section 35-2s-8e. McClosky lime at 3,396-3,415 ft., total depth 3,421 ft., set 5½-in. casing at 3,394 ft. New Penn Development Co. No. 1 French, NW cor. Section 14-2s-9e, Fredonia lime top at 3,326 ft., total depth 3,437½ ft., shut down for orders. Puckett No. 1 Oakley, NE NW NE Section 34-2s-8e, drilling at 3,358 ft., Cypress sand topped at 2,938 ft. and Weiler at 2,947 ft., the latter containing water. Simmons and others No. 1 Felix, SE SW SE Section 27-2s-8e, set 5½-in. casing at 3,350 ft., total depth 3,396 ft., acidized with 3,000 gal., testing. Robinson No. 1 Carter, SE NE NW Section 15-2s-8e, McClosky lime at 3,293-98 ft. and 3,315-25 ft., total depth 3,360 ft., set 5½-in. casing on bottom. Robinson No. 1 Leach, NW SW NW Section 14-2s-8e, Fredonia lime top at 3,358 ft., set 5½-in. casing at 3,364 ft., will finish with standard tools. Iroquois Oil & Gas Co. No. 1 Walker, SW SW SW Section 9-3s-9e, coring at 3,424 ft.

In Washington County, Ed Robinson and others No. 1 Brinkman, NW NW SE Section 12-2s-4w, McClosky lime at 1,430-35 ft., total depth 1,490 ft., shut down for

(Continued on Page 98)

WESTERN KENTUCKY

OWENSBORO, Ky., June 19.—In a low-ebb week in the western Kentucky fields a small oil well and a dry hole comprised the completed work. Snowden & McSweeney had a near completion in McClosky lime pay in the new Thruston pool in Daviess County, which was being cleaned out after it had made a 30-bbl. showing. Five new locations were made in the course of the week in four counties; and one well was rigging up and two new wells were drilling in the district.

Following were the completions and new operations:

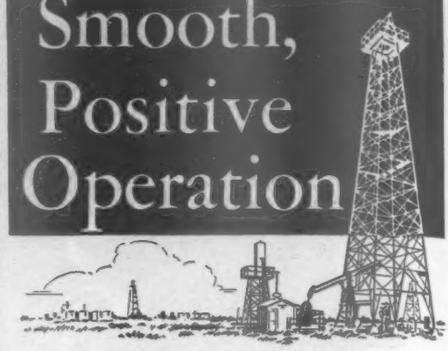
Breckenridge County, Cloverport district: J. C. Beasley and R. H. Allison No. 1 W. A. Bascham, location. Tar Fork district: J. C. Ellis and others No. 1 Noal Mason, location.

Butler County, Union School district: M. P. Evans and J. S. Routt No. 1 Floyd Givens, location.

Daviess County, Thurston district: Snowden & McSweeney No. 1 C. H. Abell, south 100 acres, 30 bbl. natural flow from McClosky; now cleaning and testing; total depth 1,447 ft. Utica district: J. C. Ellis and others No. 1 Adolpha Morris, location.

(Continued on Page 112)

Smooth, Positive Operation



A valve must be so constructed as to allow smooth opening and closing with the least possible effort. To guarantee this effect, the best valve positions gates directly opposite ports before wedging, and entirely *unwedges* the gates before raising them. The best valve also cleans itself, allows ready replacement of parts through ample tolerances, and guarantees positive closure with self-releasing 30° angle wedges and flexible-action gates *self-adjusting* to seats. It allows no pressure shock.

Only the parallel seat, double wedge type slide gate valve provides *all* these essential benefits. This principle, developed and perfected by Ludlow, has been universally accepted and preferred for oil, gas, and water lines since 1866.

Information free on request.

The LUDLOW VALVE MFG·CO· SINCE 1866 TROY·N·Y·

North Louisiana, Arkansas

By GEORGE WEBER

Magnolia, Busiest Field in Tri-State Area, Is Extended

SHREVEPORT, La., June 19.—Drilling and development in the tri-state district was quiet in the past week, with attention directed to two wells. A deep wildcat in the Sibley area of Webster Parish is in the lower Marine formation, approaching possible production in sands corresponding to pay zones in nearby Cotton Valley. Of more immediate interest, the southwest outpost test to the Magnolia field of Columbia County, Arkansas, is reported to have found both gas and oil saturation in the Smackover lime.

Drilling operations have fallen off in the Shreveport field, and nominal activity continues in Jefferson, Texas; Cotton Valley, Louisiana, and Schuler, Arkansas. Gas-distillate fields figured in the news during the past week, with a new well in the Bisteneau field of Bienville Parish, and reports of further developments include a recycling plant, under consideration in the newly completed gas distillate field discovered by Turner & Smith in Panola County, East Texas.

Magnolia Operations

Magnolia in Columbia County, Arkansas, is the only field in the district currently under intensive development. With 15 wells drilling, the field is being extended in three directions. Most important outpost is G. H. Vaughn No. 1 Jones, C NE NE Section 21-17-20. It topped the Cotton Valley at 5,530 ft. and although direct reports from the well are lacking, reliable information is that the well topped the Smackover lime only 60 ft. lower than wells on top of the structure. With a gas cap of 110 ft. underlain by 189 ft. of oil saturation, this means that the 1-mile outpost will extend production in Magnolia during the next week.

In the field proper, Southwood Oil Co. completed No. 1 Greiling, an inside location, after considerable trouble with a stuck drill stem. A southeast outpost, two locations from production, Placid Oil Co. No. 1 Couch, is drilling below 5,700 ft.

In the vicinity of Experiment, Columbia County, Atlantic Refining Co. No. 1 Pine Woods Lumber Co., C NE NE Section 16-18-22, has begun coring at 4,235 ft. The deep Smackover wildcat is located 10 miles southwest of the town of Magnolia.

To the west in Lafayette County, the Lewisville field received a setback in abandonment of two weeks drilled through the anhydrite without showings of production. The wells were drilled for East Texas Refining Co. and Erwin & Leach, discoverers of the field.

Sibley Test

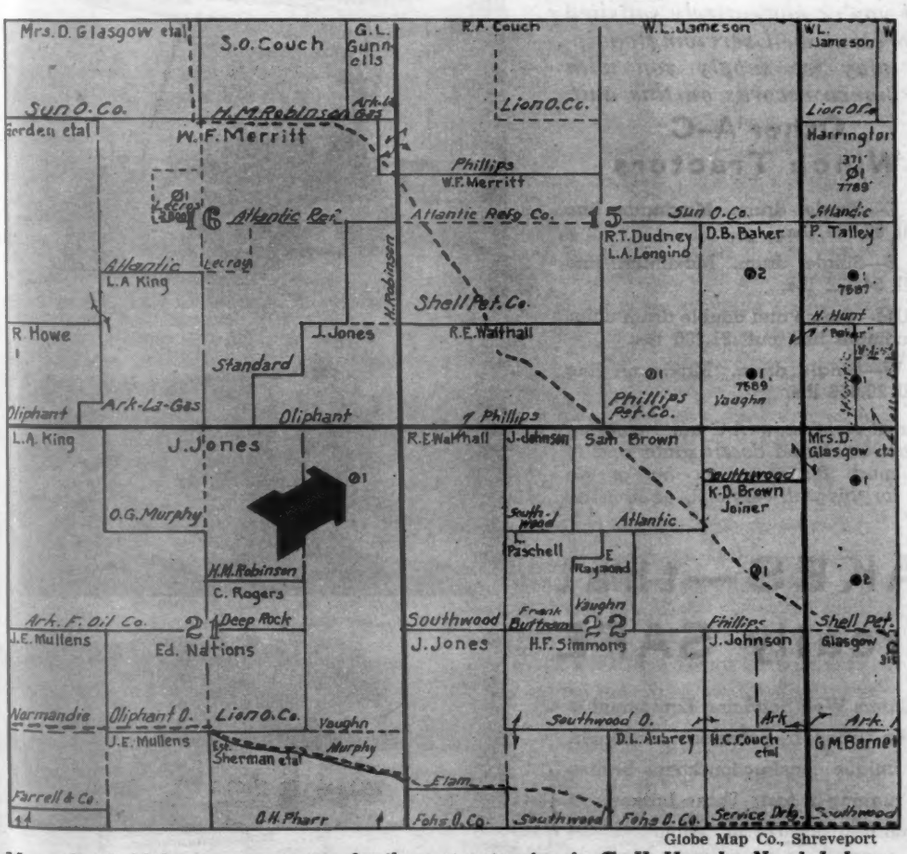
North Louisiana's deepest current test, Union Producing Co. No. 1 Walker Unit, is drilling in sand below 10,239 ft., having topped the lower Marine formation at 10,082 ft. The depth of the formation, with comparison to Cotton Valley, which is several hundred feet higher, lessens the possibility of finding production in the Bodcaw sand.

The Bisteneau field of Bienville Parish added another producer by the completion of Arkansas Louisiana Gas Co. No. 1 Thomas, which had an estimated open flow of 60,000,000 cu. ft. of gas with rock pressure at 2,110 lb. This is a Pettit lime producer.

Shreveport Field

Attempts to extend the Shreveport field to the west have met with failure. J. P. Driscoll and others No. 1 Woolworth retested salt water after having plugged back from 5,608 ft. to 5,605 ft. following a squeeze job on the salt water section at the bottom of the hole. The well is shut down at 5,605 ft. awaiting orders and the operators are reported considering acidizing it.

The deep Pine Island test, Stanolind Oil & Gas Co. No. 131 Dillon heirs, is drilling below 2,400 ft., attracting a growing interest as it approaches the lower Marine. Considerable coring and drilling of a large hole will slow up operations, and the formation is not expected to be topped for the next few weeks.



Globe Map Co., Shreveport

Magnolia field has a prospective 1-mile-west extension in G. H. Vaughn No. 1 J. Jones, reported to have found saturated Smackover lime

Production by Pools

Estimated daily gross production all companies week ending June 17:

NORTH LOUISIANA

	Barrels
Bellevue	600
Caddo light	4,415
Caddo heavy	2,340
Converse	550
Cotton Valley heavy	65
Cotton Valley light	*13,430
Cross Lake	7,425
De Soto and Red River	1,130
Elm Grove	250
Haynesville	2,850
Holly	85
Homer	2,775
Lisbon	2,950
Pleasant Hill	95
Rodessa	27,205
Sarepta-Carterville	†430
Sligo	1,290
Sugar Creek	295
Urania	2,825
Zwolle	2,810
Total	73,815

SOUTH ARKANSAS

Atlanta	350
Buckner	1,895
Champagnolle	1,400
El Dorado	1,685
Lewisville	105
Lisbon	255
Magnolia	8,170
Miller County	290
Nevada	620
Rodessa	4,285
Schuler	18,400
Smackover light	1,920
Smackover heavy	14,725
Stephens	555
Troy	950
Urbana	1,065
Village	885
Total	57,555

Texas side of Rodessa field 28,430 bbl. daily.

*4,430 bbl. is distillate.
†185 bbl. is distillate.

NORTH LOUISIANA COMPLETIONS

Bisteneau—Bienville Parish

Arkansas Louisiana Gas Co. No. 1 Thomas, 662 ft. S and 100 ft. E of NW cor. Section 13-16-10, estimated 60,000,000 cu. ft. of gas on open flow, rock pressure 2,110 lb., 8⅝-in. casing at 5,185 ft., perforated at 5,068-5,116 ft., treated with 6,000 gal. of acid., perforated at 5,136-73 ft., total depth 5,185 ft.

Caddo—Caddo Parish

Ballow & Williams No. 1 Crystal fee, 200 ft. W and 150 ft. N of SE cor. NE SW Section 24-21-16, pumping 50 bbl. per day, total depth 982 ft.

Homer—Claiborne Parish

Maritsky & Bibby No. 3 McClung, 1,154 ft. N and

(Continued on Page 114)

Here's a PROVED MEANS to Faster, Safer Well Servicing

The Allis-Chalmers UE Double Drum Winch Tractor is the most complete, high speed, well pulling and servicing unit. Road speeds of 15 or 30 m.p.h. maximum. This unit can be equipped with spudding sprocket or rotary drive sprocket, enabling it to be used for work-over jobs and general servicing by either cable tool or rotary method. Telescope mast is also available.

Has two drums and eight selective line speeds on each drum from 49′ to 1095′ p.m. Maximum line pull 54,032 lbs. Front drum capacity 9,740′ of ½″ line. Rear drum 7,330′ of ½″ line. Heavy duty tractor type transmission with four forward speeds and one reverse. Engine is Allis-Chalmers slow speed tractor type, 4 cylinders, with torque of 340 ft. lbs.—*power to spare in engine and pulling equipment.*

This unit can also be supplied with 13.50″ x 24″, six ply heavy duty tractor tires on all wheels, using duals on rear, for work where ground conditions are particularly soft. It's built to be treated rough and get the job done in the minimum of time with maximum safety. *If you're not entirely satisfied with present well servicing equipment, may we supply you with performance records on this unit.*

Other A-C Winch Tractors

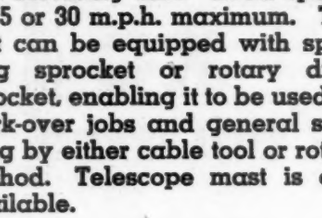
Model L—Single drum. Maximum line pull 62,000 lbs.

Model E—Single drum. Maximum line pull 54,032 lbs.

Model UM—Single and double drum units. Maximum line pull 31,200 lbs.

Model W—Single drum. Maximum line pull 20,666 lbs.

Pictures at right show A-C units working in the hot California desert sands and in Illinois mud. It's never too hot or too muddy for this well servicing equipment.



BRAKES—that are really SAFE

All Allis-Chalmers Well Servicing Equipment is equipped with Cooper, patented, air-cooled brakes. This unique construction keeps brakes cooler when running-in fast. These brakes are self equalizing, and positive in action.

Rocky Mountain Area

By
T. R. INGRAM

Sunburst Sand Produces in Cut Bank Field in Montana

DENVER, Colo., June 19.—Montana showed the most interesting results of the week in the northern Rocky Mountain area with three completions and two new operations in Cut Bank, one wildcat in Cascade County, and another in Teton County abandoned, and one new operation in Fallon County. The Glacier Production Co. No. 3 Corrigeux, in Cut Bank, swabbed 516 bbl. the first 24 hours, production coming from both the Sunburst and Cut Bank sands, the first commercial producer in the field in the Sunburst and one of the largest wells in the field this year.

Wyoming had one completion, a 315-bbl. well in Lance Creek, in the Continental Oil Co. No. 8-B Schuricht, one new operation in that field, and one in Hot Springs County. The Salegna Oil Co. test in North Baxter basin, was unable to sidetrack bit and was abandoned.

Colorado had no completions or new operations.

NEW MEXICO

Magnolia Petroleum Co. No. 32 State-Bridges, C NE NW Section 25-17s-34e, Vacuum area, Lea County, New Mexico, set 2½-in. tubing at 4,580 ft., perforated casing at 4,461 ft. and flowed 37 bbl. of oil in 4 hours. Top of pay was 4,510 ft., total depth 4,620 ft.

Drilling & Exploration Co. No. 2-M State, SW NW SE Section 29-17s-35e, was bottomed at 4,650 ft. and completed for 170 bbl. of oil in 24 hours. Pay was topped at 4,427 ft.

Texas Pacific Coal & Oil Co. No. 16-A State, NE NE SE Section 11-22s-36e, South Eunice area, had pay at 3,760 ft., total depth 3,802 ft., and after setting tubing at 3,802 ft., flowed 350 bbl. of oil daily.

Gulf Oil Corp. No. 1-C Carson, C NE NE Section 33-21s-37e, Hardy area, found pay at 3,685 ft., was bottomed at 3,760 ft., and after acid treatment flowed 99 bbl. of 35.8-gravity oil in 24 hours.

Anderson-Prichard Oil Corp. No. 6 Wells, C SW NW Section 5-25s-37e, Langlie pool, flowed 10 bbl. of oil an hour for 12 hours from pay topped at 3,423 ft. Total depth was 3,543 ft.

Texas Co. No. 18 Lieu-Lands, C NE NW Section 19-20s-37e, Monument area, flowed 268 bbl. of oil in 19 hours through tubing set at 3,870 ft. Pay was found at 3,760 ft., total depth 3,870 ft.

Continental Oil Co. No. 6 Britt B-15, C W½ SE NW Section 15-20s-37e, had pay at 3,885 ft., total depth 3,915 ft., and flowed 160 bbl. of oil in 24 hours.

Stanolind Oil & Gas Co. No. 1-B Gregory, C SW NW Section 15-26s-37e, Rhoades area, found pay at 3,060 ft. and was bottomed at 3,134 ft. After being shut in for 8 hours the well produced 3,900,000 cu. ft. of gas and was completed.

North Shore Oil Corp. No. 4 Woolworth, SE NW NW Section 33-24s-37e, Mattix area, found pay at 3,510-12, 3,525-27, and 3,533-39 ft., and flowed 45 bbl. of oil in 8 hours. Total depth was 3,565 ft.

Continental Oil Co. No. 1 Jack B-29, NE SE SE Section 29-24s-37e, topped pay at 3,500 ft., total depth at 3,560 ft., set packer at 3,338 ft., and flowed 56 bbl. of oil hourly with 2,070,000 cu. ft. of gas daily.

Kan-Mex Corp. No. 4 Vaughn B-3, C SE NE Section 3-24s-36e, Cooper area, flowed 54 bbl. of oil in 6 hours through choke on 2-in. tubing set at 3,616 ft. Top of pay was 3,560 ft., total depth 3,625 ft.

Skelly Oil Co. No. 8 Baker, SW NE NE Section 27-22s-37e, Penrose area, had pay at 3,608 ft., total depth 3,705 ft., was shot and flowed 100 bbl. of oil daily.

Lem Peters No. 2 Call, C W½ NW SW Section 26-22s-37e, flowed 65 bbl. of oil in 24 hours from pay found at 3,545 ft. Total depth was 3,646 ft.

Completions in Eddy County were: Harvey E. Yates No. 1 Travis, C E½ SE SE Section 6-18s-29e, flowed 36 bbl. of oil in 24 hours through open 2-in. tubing set at 2,526 ft. Pay was found at 2,492 ft., total depth 2,606 ft.

Allen, Fair & Pope No. 1-A State, SE NE SE Section 36-17s-29e, flowed 100 bbl. of oil daily through 2-in. tubing set at 2,575 ft. Top of pay was 2,740 ft., total depth 2,775 ft.

Lea County

Magnolia Pet. Co. No. 1-S State, C NE SW Sec. 34-16-34. Drlg. 4,911 ft.
Amerada Pet. Co. No. 2 State, C NE SW Sec. 1-17-36. Drlg. 3,023 ft.
Carper Drlg. No. 1 Simon, C NE NE Sec. 29-17-32. T.D. 3,759 ft.; S.I. 16 hours and F. 100 B.O. in 8 hours.
Drlg. & Exploration No. 1-C State, C W½ SE SE Sec. 24-17-34. T.D. 4,665 ft.; C.O.; F. 57 B.O. in 11 hours and died.
Drlg. & Exploration No. 1-O State, NE NW NE Sec. 34-17-34. W.O.C. 1,573 ft.
Phillips Pet. Co. No. 2 Mable, C NW NW Sec. 35-17-34. Drlg. 4,095 ft.
Phillips Pet. Co. No. 30 Santa Fe, C SW NW Sec. 26-17-35. Loc.
Shell Oil Co. No. 3-N State, C SW NE Sec. 28-17-35. Drlg. 3,980 ft.
Humble O. & R. Co. No. 6-K State, C SE SE Sec. 32-17-35. Drlg.
Paul Love No. 3 Pearsall, C NW NW Sec. 33-17-32. T.D. 1,198 ft.; W.O.C.
Magnolia Pet. Co. No. 1 Selby, C NW NE Sec. 7-17-37. Drlg. 4,970 ft.
Magnolia Pet. Co. No. 34 State-Bridges, C SE SW Sec. 14-17-34. Drlg. 3,365 ft.
Magnolia Pet. Co. No. 35 State-Bridges, C NE SW Sec. 26-17-34. Drlg. 1,660 ft.
Magnolia Pet. Co. No. 36 State-Bridges, C NW NW Sec. 25-17-34. Drlg. 1,625 ft.
Magnolia Pet. Co. No. 2-R State, C NE SE Sec. 1-17-36. Drlg. 3,100 ft.
Maljamar O. & G. Co. No. 2-B Baish, C NE NE Sec. 27-17-32. T.D. 3,996 ft.; fsg.
Maljamar O. & G. Co. No. 2 Mitchell, SW SE SW Sec. 5-17-32. Drlg. 4,237 ft.
Ohio Oil Co. No. 2 State-Shugart, C NW SE Sec. 34-17-34. Drlg. 4,325 ft.
Ohio Oil Co. No. 3 State-Warn, C SW NE Sec. 33-17-35. Cellar.
Shell Oil Co. No. 2-T State, C NW SE Sec. 33-17-35. Drlg. 4,395 ft.
Shell Oil Co. No. 2-N State, C SE NE Sec. 28-17-35. Drlg. 4,422 ft.
Shell Oil Co. No. 3-N State, C SW NE Sec. 28-17-35. Drlg. 3,980 ft.
Skelly Oil Co. No. 1-P State, C NW NW Sec. 33-17-35. Drlg. 2,660 ft.
Standard of Texas No. 4 State Lease 5, C NE NW Sec. 27-17-35. Drlg. 3,580 ft.
Texas Co. No. 4-N State, C NW NW Sec. 30-17-35. Drk.
P. B. English No. 1 Miller, C NE SE Sec. 18-19-32 (wildcat). H.F.W.; drlg. 3,325 ft.
Phillips Pet. Co. No. 4 Hobbs, C SE SW Sec. 18-20-37. Drlg. 3,640 ft.
Aloco Oil Co. No 3-B Carson, C NW NE Sec. 33-21-37. Drlg. 2,659 ft.
Danglade & Clower No. 2 Owen, C W½ NW SW Sec. 34-21-37. Gas 2,878 ft.; drlg. 3,476 ft.
Humble O. & R. Co. No. 1 Hardison, C SW NE Sec. 34-21-37. T.D. 3,730 ft.; F. 42 B.O. in 24 hours.
Magnolia Pet. Co. No. 5 Carson, C SW NE Sec. 33-21-37. T.D. 3,770 ft.; S.I.
Magnolia Pet. Co. No. 3 Marshall, C NW NW Sec. 34-21-37. Drlg. 1,185 ft.
Skelly Oil Co. No. 2-K State, C NW NW Sec. 32-21-37. Drlg. 1,595 ft.
Stanolind O. & G. Co. No. 5-C Hill, C NW NE Sec. 5-21-37. T.D. 3,488 ft.; rng. csg.
Wilson Oil Co. No. 1 Shell-State, C NE SW Sec. 7-21-35. Loc.
J. C. Clower No. 2-B Christmas, SE NE SW Sec. 28-22-37. R.U. mch.
Gulf Corp. No. 6-E Mattern, SW SE NW Sec. 12-22-36. Drlg. 2,865 ft.
Osage Drlg. No. 1 Christmas, NE NE SE Sec. 17-22-37. Loc.
Peters & Elder No. 3 Brunson, SW SW SW Sec. 3-22-37. Loc.
Repollo Oil Co. No. 3 State Lease 157-D, NW NW SE Sec. 12-22-36. W.O.C. 340 ft.
Lem Peters No. 3 T. O. May, SW SW NE Sec. 34-22-37. Spd.
Texas Co. No. 2-B Fally, C SE SW Sec. 8-22-37. T.D. 3,720 ft.; P.B. 3,694 ft.; tstg.
Texas Pacific C. & O. No. 17-A State, SE SE NE Sec. 11-22-36. Drlg. 337 ft.
Anderson & Prichard No. 2 Blinebry, C SE SW Sec. 29-23-37. Loc.
Continental Oil Co. No. 2 Lynn A-28, C NW SE Sec. 28-23-36. Drlg. 1,718 ft.
Great Western Prod. No. 3-B Leonard, SW NE NW Sec. 32-23-37. T.D. 3,564 ft.; shot and S.I.
Great Western Prod. No. 4-B Leonard, C SE NW Sec. 32-23-37. Loc.
Skelly Oil Co. No. 4 Simms, SW NE SE Sec. 3-23-37. T.D. 3,660 ft.; S.I. for storage.
Skelly Oil Co. No. 2-A King, C NW SW Sec. 33-22-37. Loc.
Addison Oil No. 4 Knight, C SE NW Sec. 27-24-37. Drlg. 1,850 ft.
Anderson & Prichard No. 1-A State, C SW NW Sec. 32-24-37. T.D. 3,549 ft.; S.I.
Anderson-Prichard Oil Corp. No. 1-B State-32, C SE NW Sec. 32-24-37. Drlg. 3,170 ft.
Continental Oil Co. No. 5 Jack A-20, Sec. 20-24-37. Drlg. 2,290 ft.
Humble O. & R. Co. No. 1-L State, C NE SE Sec. 32-24-37. T.D. 3,560 ft.; P.B. 3,551 ft.; S.I.
Humble O. & R. Co. No. 2-L State, C SE NE Sec. 32-24-37. T.D. 3,550 ft.; F. est. 30 B.O.P.D.
C. B. King No. 1 Harrison, C SE NW Sec. 30-24-37. Drlg. 1,990 ft.
Montecito Corp. No. 2 Woolworth, NE SW SW Sec. 33-24-37. T.D. 3,543 ft.; rng. tbg.
Phillips and Pure No. 8 Woolworth, C NW NE Sec. 33-24-37. Drk.
Repollo Oil Co. No. 4-B Whitten, NE NE SE Sec. 4-24-36. T.D. 3,755 ft.; P.B. 3,660 ft.; S.D.O.
Schermerhorn Oil Co. No. 7 Woolworth, C SE SE Sec. 28-24-37. Drlg. 2,631 ft.
Skelly Oil Co. No. 2-M State, C NW SW Sec. 32-24-37. Loc.
Weier Drlg. Co. No. 4 Woolworth, SE NW SW Sec. 28-24-37. Drlg. 2,890 ft.
Anderson & Prichard Oil Corp. No. 8 Wells, C N½ NE NW Sec. 4-25-37. Drlg. 3,471 ft.
Anderson & Prichard Oil Corp. No. 9 Wells, C SW NE Sec. 6-25-37. M.I.M.
Hershback Drlg. Co. No. 1 Woolworth, NE NE SW Sec. 8-25-37. C.&P.
Hershback Drlg. Co. No. 2 Burleson, C E½ SE NW Sec. 8-25-37. C.&P.
Ralph Olson No. 1 Langlie, SE NW NW Sec. 10-25-37. T.D. 3,430 ft.; to test.
Parker Drlg. No. 1-B State, C W½ NE NW Sec. 2-25-37. Drlg. 1,939 ft.
Richmond Drlg. No. 3-A State, C SE SW Sec. 2-25-37. Drlg. 3,303 ft.
Weiner et al No. 4 Smith, NW SE SE Sec. 4-25-37. Drlg. 3,160 ft.

Eddy County

G. R. Burke No. 1 State, NE NE NW Sec. 36-16-24. T.D. 801 ft.; S.D.
Allen, Fair & Pope No. 2-A State, SE SW SW Sec. 36-17-29. T.D. 2,699 ft.; F. 40 B.O. in 12 hours.
B. L. Arnold No. 1 Arnold, NW NW NW Sec. 34-17-30. T.D. 3,360 ft.; S. 21 B.O. in 8 hrs.
Aston & Fair, Inc., No. 1 Hudson, C NE NE Sec. 18-17-31. T.D. 3,533 ft.; P.B. 3,518 ft.; F. 36 B.O. in 2 hrs.
Danciger O. & R. No. 5-A Turner, C N½ NW NW Sec. 19-17-31. Loc.
Friendship Oil Co. No. 1 State, SE SE SW Sec. 36-17-29. R.U.S.T. 2,650 ft.
Grayberg Oil Co. No. 12 Burch, NW NW SE Sec. 19-17-30. T.D. 3,220 ft.; F. 100 B.O.P.D.
J. E. Hughes No. 2 Brooks, NE NW NW Sec. 19-17-28. Drlg. 575 ft.
C. L. Jones No. 1 Harbold, NE NE NE Sec. 26-17-27. S.D. 488 ft.
F. G. Keyes No. 3 State, NE SW NE Sec. 9-17-28. Drlg. 440 ft.
Nash et al No. 9-A Jackson, C N½ NW NE Sec. 24-17-30. Drlg. 3,325 ft.; est. 15 B.O.P.D.
R. L. Newberry No. 2 Saunders, NE SE SE Sec. 13-17-27. T.D. 447 ft.; P. 15 B.O.P.D.
Plains Prod. No. 1 Daugherty (wildcat), SE SE SE Sec. 11-17-27. T.D. 428 ft.; W.O.C.
Premier Pet. Corp. No. 1-F Beeson, SW NW SW Sec. 31-17-30. T.D. 2,794 ft.; shot and F. by hds. 275 B.O. in 24 hrs.
Premier Pet. Co. No. 2-F Beeson, SW SW SW Sec. 31-17-30. C.&P.
Repollo Oil Co. No. 4-A Keel, SE NE SW Sec. 7-17-31. T.D. 3,586 ft.; C.O.; S.&F. 50 B.O.P.D.
Repollo Oil Co. No. 3 West, NE NE NE Sec. 3-17-31. Drlg. 4,103 ft.
Repollo Oil Co. No. 6-A Parke, NW SW NW Sec. 22-17-30. Loc.
W. K. Royalty No. 3-B State, C NE NW Sec. 16-17-31. Drlg. 3,535 ft.
H. T. Clark et al No. 1 Massie, C SW SW Sec. 27-18-29. Drlg. 475 ft.
Continental et al No. 1 Brainard, NE NE NW Sec. 11-18-19. Fsg. 1,830 ft.
Continental et al No. 1 Travis, SE SE SE Sec. 3-18-29. M.I.M.
J. H. Steinberger No. 2 Hastie, SW SW SW Sec. 18-17-28. T.D. 560 ft.; B. 6 B.O.P.D.
Adkinson Oil Co. No. 1 Brainard, SE SW SE Sec. 5-18-27. T.D. 2,002 ft.; S.D.O.
L. E. Elliott No. 1 Elliott, SE SE SE Sec. 24-18-29. T. D. 2,030 ft.; fsg.
Etz & Cone No. 1 Nelson, SE SE NE Sec. 10-18-30. Drlg. 3,178 ft.
R. W. Fair No. 1 State, NE NE SW Sec. 1-18-29. T.D. 2,625 ft.; W.O.C.
Farmer & Talimadge No. 1 Hubbell, NE SW Sec. 4-18-25. Rng. csg. 685 ft.
Franklin Pet. Corp. No. 1 Cappedge, NW SW NW Sec. 5-18-30. T.D. 2,882 ft.; S.O. 2,877-82 ft.
Green Bay-Paton No. 1 Erwin, C SW SW Sec. 9-18-31. T.D. 3,186 ft.; F. 96 B.O. in 2 hrs.
H. W. Martin No. 1 Gates, SE SE SW Sec. 15-18-30. T.D. 3,239 ft.; pay 3,204 ft.; S.D.
Me-Tex et al No. 1-B Ballard, C NW NW Sec. 8-18-29. Drlg. 585 ft.
Me-Tex et al No. 1 Yates, C SW SE Sec. 5-18-29. Drlg. 1,705 ft.

Plains Prod. No. 1 Swearingen, C NW NE Sec. 14-18-31. Drlg. 3,710 ft.
G. V. Price No. 2 Massie, SE SE NW Sec. 22-18-29. Drlg. 2,505 ft.
Martin Yates No. 1 Saunders, NE NE NE Sec. 12-18-29. Drlg. 3,164 ft.
Rhodes Drlg. No. 2 Swearingen, C NE NE Sec. 14-18-31 (wtr. well). S.D. rprs. 2,189 ft.
Texwell Corp. No. 1 Sullivan, C SE SW Sec. 23-18-31. Drlg. 3,085 ft.
Underwood & Sanders No. 1 Miller, C SE NE Sec. 5-18-29. Drlg. 1,475 ft.
Underwood & Sanders No. 1 Guy, SE NW NW Sec. 10-18-29. T.D. 250 ft.; S.D. rprs.
Underwood & Sanders No. 1 Langford, C SW SW Sec 9-18-29. Drlg. 2,365 ft.
Me-Tex Supply Co. No. 1 State, NW NW NW Sec. 2-18-31. T.D. 3,272 ft.; 2,400 ft. W.I.H.
Trojan Oil Co. No. 1 Grant, SW SW NE Sec. 33-20s-25e. Drlg. 897 ft.
Geo. L. Roundey No. 1 Roundey, C SE SW Sec. 8-23-26. Drlg. 585 ft.

Chaves County

Mac T. Anderson No. 1 Warnock, C SW SE Sec. 17-13-27. Drlg. 1,575 ft.
R. M. Baker No. 1 Baker, NW NW NW Sec. 19-10-30. Moving in cable rig.
Comanche Drlg. No. 1 Campbell, NE NE NW Sec. 15-11-26. T.D. 3,445 ft.; P.B. 3,430 ft.; to shoot.
Nay Hightower No. 1 Billingslea, C SW NE Sec. 28-11-30. T.D. 3,445 ft.; P.B. 3,430 ft.; acdg. and tstg.
Tarkenton Bros. No. 1 Peters, SE SE NW Sec. 33-11-25. S.D. 910 ft.
New, Russell & Wood No. 1 Sterrett (wildcat), NW SE NW Sec. 29-11-25. T.D. 951 ft.; P. 10 B.O.P.D.; shot.
Western Minerals, Inc., No. 1 Dow (wildcat), C SW NW Sec. 27-10-30. Drlg. 1,200 ft.

Luna County

O. D. Berry No. 1 Berry, SE SE SW Sec. 33-22s-10w. Drlg. 707 ft.

NORTHWEST NEW MEXICO

Bernalillo County

Norins Realty Co., Inc., No. 2 Pajarita, Sec. 22-9n-1e. Drlg. below 1,350 ft.

San Juan County

Continental Oil Co. No. 92 Rattlesnake, C W½ W½ Sec. 1-29n-19w. Drlg. 310 ft.; (first report).
Angel Peak Oil Co. No. 8 Govt., C NE SW Sec. 13-28n-11w. Loc.
Al Greer No. 2 Thompson, SW SE SW Sec. 10-30n-11w. S.D. 1,125 ft. for 6⅝-in. for W.S.O.
Geo. Goodwin No. 1, NE NW NW Sec. 16-30n-11w. Drlg. sh. 1,350 ft.; H.F.W.

Torrance County

Drice Co. No. 1 Garland, NE SE Sec. 32-7n-7e. S.D. 1,910 ft.

San Miguel County

Ben E. Keith No. 1 McCune, SW SE SW Sec. 32-16n-12e. Drlg. 375 ft.
Southwest Drlg. Co. No. 1 Conchas, NW NE Sec. 34-17n-21e. Drlg. 1,850 ft.

Valencia County

C. A. Grober et al No. 1 Fuqua, NE NE Sec. 19-5n-3e. Cg. 1,794 ft.
Joiner Oil Corp. No. 1 San Clement, C NE SE Sec. 23-7n-1e. T.D. 5,606 ft.; set whpstk.; drlg. by D.P.

COLORADO

Boulder County

J. A. Warren No. 3 Maxwell, NW NE NW Sec. 24-1n 17w. S.D. temp. at 165 ft.
Reynolds & Rohr No. 1 Thomas, SW SW Sec. 17-1n-70w. S.D.O. 2,138 ft.; will D.D. under management of Reynolds.

Fremont County

T. E. Maloney No. 1, SE SW Sec. 34-19s-69w. Drlg. 650 ft. in 6⅝-in. hole.
Waterville Oil Co. No. 2 Persons, CWL NE NE Sec. 17-19s-69w. T.D. 125 ft.; fsg.

Garfield County

Roaring Fork Oil Co. No. 1 Patterson, C NE Sec. 36-7s-88w. Drlg. 2,142 ft. in blk. limey sh., lower Penn., 5 7/8-in. at 1,724 ft.

Huerfano County

J. W. Tomkins & Sons No. 2 Ojo, SE SE SE Sec. 3-29s-69w. T.D. 805 ft.; rng. 8¼-in.
S. W. Pressey No. 3 Ojo, NW NW Sec. 11-29s-69w. Drlg. 200 ft.
S. W. Pressey No. 2 Alamo, C SW SE Sec. 3-27s-68w. S.D. 1,910 ft.
Miller & Hall No. 1 Hamilton, SE NW Sec. 20-29s-67w. T.D. 670 ft.; rng. cave string.
Baker-Dunigan No. 1 Firm Bros., SE NE Sec. 3-29s-69w. Spd. to 150 ft. and S.D. for heavier rig.

La Plata County

Nick Spatter No. 1-X Bryce, C SW SW Sec. 32-33n-9w. T.D. 2,352 ft.; fsg.

Mesa County

Continental Oil Co. et al No. 1 Miller, SW SW NW Sec. 36-8s-91w. Drlg. blk. limey sh. 9,881 ft.

Moffat County

Cooperative O. & G. Co. No. 1 Gossard, CWL E½ E½ Sec. 29-5n-93w. Spd. and S.D. to complete R.U.
C. R. Privett No. 1 Sutton, NE NE SW Sec. 1-5n-96w. T.D. 1,263 ft.; pulled and rerun 8¼-in. to 1,198 ft.; U.R. to bttm.
J. S. Warner No. 1 Baker, NE NE SW Sec. 35-5n-96w. Spd. and S.D.

Park County

South Park Oil Co. No. 1 Lemar, NE NE SE Sec. 34-11s-75w. T.D. 6,975 ft.; fsg. blr.

Pueblo County

Eden O. & G. Co. No. 1 Horse Creek Ld. & Cattle, SW SE Sec. 29-19s-64w. Drlg. fine sd. 2,185 ft.; (C.D.).

Rio Blanco County

Texas Co.-California Co. No. 2 Unit, NW SE SW Sec. 27-3n-94w. Drlg. 2,649 ft.
Buford Oil Co. No. 1 Govt., C SW SW Sec. 16-1n-91w. T.D. 3,645 ft.; W.O. 6¼-in.

WYOMING

Big Horn County

Ohio Oil Co. No. 1 Syverson, Sec. 34-54n-93w (SE SW NW Lot 53). Drlg. 2,068 ft.
Frank S. Scott No. 1 Robertson, SE SE SE Sec. 6-54n-93w. Drlg. 417 ft.
Mule Creek Oil Co. No. 1 Sessions, Lot 53 (NW NW) Sec. 34-56n-97w. Drlg. 3,502 ft. in new hole.
Libby-Keoughan No. 1 Sheets, SE NE SE Sec. 9-55n-96w. Drlg. 3,660 ft.
A. L. Rankin No. 1 Karjala-Rankin, C SW NW Sec. 10-54n-94w. T.D. 790 ft.; M.I. 6⅝-in. to set on bttm. for W.S.O.; top Embar 180 ft.; Tensleep 481 ft.; Amsden 755 ft.

Carbon County

Sinclair-Wyoming Oil Co. No. 13 Wertz, NE NW NW Sec. 7-26n-89w. Drlg. 4,779 ft.; T. Frontier 2,270 ft.; Dakota 3,502 ft.; Lakota 3,678 ft.
Producers Oil Co. No. 1 Lake Valley, CNL Sec. 14-20n-88w. Drlg. gr. sh. 2,550 ft.; carrying 10-in. at 2,485 ft.

Converse County

New Era Fuel Co. No. 1 Simonson, NW NE SE Sec. 16-32n-68w. Drlg. 715 ft.
Wyshawn Oil Co. No. 2 Lindley, C SW SW Sec. 35-32n-69w. Drlg. 2,613 ft.
W. W. Austin et al No. 1 Pfister, SW NE NW Sec. 20-32n-68w. T.D. 713 ft.; cmtd. 5 7/8-in. at 710 ft.; S.G. in. sdy. sh. 710-13 ft.
New Era Fuel Co. No. 2 Gasper, CNL NW SW Sec. 25-32n-69w. Cg. 750 ft.
New Era Fuel Co. No. 1 Pestal, SE NE NE Sec. 32-32n-69w. C.O. 420 ft. to run 8¼-in.; (formerly Fred Bunker).

Fremont County

Hall & Olinger No. 5 Govt., NW NE Sec. 33-38n-93w. S.D. 254 ft.
Lincoln O. & G. Co. No. 5 Tribal, C SW SE Sec. 23-1s-1e. Drlg. 919 ft.
Pilot Oil Co. No. 8 Hoffman, C SW SW Sec. 22-3n-1w. Drlg. gr. sh. 650 ft.
Consolidated Oil Properties No. 3 Ewart, C SW SE Sec. 16-1n-1w. T.D. 1,245 ft.; U.R. 6⅝-in. at 1,000 ft.
Frank Pouppirt No. 2 Fidelity Tr., NW NW SW Sec. 27-3n-1w. S.D. 1,200 ft.

Hot Springs County

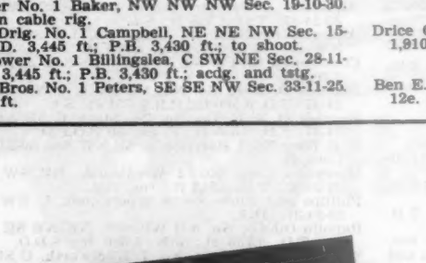
Phebus Oil Co. No. 2 Govt., NW SW SW Sec. 11-44n-98w. Cmtd. 15½-in. at 240 ft.; W.O.C.; (formerly Columbus Oil Co.).

Lincoln County

H. C. Harris et al No. 1 Govt., SE NW NW Sec. 23-21n-117w. T.D. 1,916 ft.; prep. to run 8¼-in. for W.S.O. before tstg. S.O.

Natrona County

Connelly Drlg. Co. No. 1 State, SW SW NW Sec. 36-36n-81w. T.D. 1,268 ft.; M.I. 10-in.
General Pet. Corp. No. 1 Govt., C NW SE Sec. 21-35n-77w. T.D. 8,511 ft.; P.B. to 7,974 ft.; fsg. blr.
Summit Oil Co. No. 2 Govt., NW NE NE Sec. 21-33n-80w. Drlg. 430 ft.; 8¼-in. at 426 ft.; S.G. in upper Frontier at 428 ft.



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Niobrara County

Lance Creek had one completion in the Continental Oil Co. No. 8-B Schuricht, SW NW SE Section 6-35n-65w, an east offset to the Minnelusa Oil Corp. No. 2 Joss. It was drilled to 5,281 ft. with the top of the Leo at 5,107 ft. and the 7-in. at 5,234 ft. It made 315 bbl. the first 24 hours through open tubing.

One new operation was reported in the Holly Development Co.-A. B. Cobb No. 4 Novick, a south offset to the Minnelusa Oil Corp. No. 2 Joss and a companion well to the operator's No. 1 Novick which was drilled to and completed in the Sundance.

The Continental No. 3-B Dielman, which showed for a small well in the Leo sand, was drilled to 5,741 ft., where a drill stem test was run, and is cementing back to the Leo. Whether this well reached the Bell sand is not known as no information was given out as to what happened below the Leo.

Holly Dev. Co.-A. B. Cobb No. 4 Novick, SE SE SW Sec. 6-35n-65w. Loc.; (first report).
Ohio Oil Co. No. 3 Cash-1, SW NW SW Sec. 4-35n-65w. C.&P.; W.O. rig.
Minnelusa Oil Corp. No. 1 Marline, NW SW SW Sec. 4-35n-65w. Drlg. 4,330 ft.; top upper Sundance 4,080 ft.
Ohio Oil Co. No. 12 Elizabeth Lamb-Acct. 2, NE SE SE Sec. 5-35n-65w. Rig.; W.O. equip.
Continental Oil Co. No. 4 Apex O.P.C.-3, NW NE SW Sec. 34-36n-65w. R.U.R.
Continental Oil Co. No. 6 Rodeo-4, NW NW NE Sec. 35-36n-65w. Cmtd. 13⅜-in. at 313.9 ft.
Continental Oil Co. No. 3-B Dielman, SW SE NW Sec. 8-35n-65w. T.D. 5,741 ft.; P.B. to Leo to comp.
Continental Oil Co. No. 16 Tom Bell Cattle, NW SW SW Sec. 34-36n-65w. Rig; W.O. equip.
Argo Oil Corp. No. 1 U. S.-40, NW NW SW Sec. 8-35n-65w. Drlg. 2,425 ft.
Continental Oil Co. No. 4 Apex O.P.C.-4, SE SE NW Sec. 35-36n-65w. T.D. 4,128 ft.; fsg. for D.P.
Continental Oil Co. No. 9 Rohlff, SE NE SE Sec. 31-36n-65w. Drlg. 3,905 ft.; top basal Sundance 3,894 ft.
Continental Oil Co. No. 15 Tom Bell Cattle, C SW SW Sec. 34-36n-65w. T.D. 5,488 ft.; set whipstk. to drill by.
Ohio Oil Co. No. 11 Putnam, SE SE SW Sec. 33-36n-65w. Drlg. below 5,526 ft.; top Leo 5,318 ft.
F. F. Hintze et al No. 1 Wright-Govt., C NW SE Sec. 30-36n-63w. T.D. 4,964 ft.; cmtd. 7-in. at 4,617 ft. and S.D.
Fall River Roy. & Prod. Co. No. 1 Govt., CSL SE SE Sec. 35-40n-61w. Drlg. 1,750 ft.; 10-in. cmtd. 1,730 ft. for W.S.O.

Park County

The Continental Oil Co., which has been cleaning out and deepening some of its old wells in the Frannie field, deepened its No. 36 Kirk-Peters, SE cor. Section 23-58n-98w, from 2,832 ft. to 2,870 ft. and recompleted it in the Tensleep for 472 bbl. the first 24 hours. It swabbed 125 bbl. per day when completed in 1929.

Dry Creek Oil Co. No. 1 State, C NE NW Sec. 16-50n-100w. T.D. 1,280 ft.; top Frontier 1,270 ft.; will run 8¼-in. for W.S.O.

Sublette County

California Co. No. 1 Unit 1, C SW NE Sec. 14-31n-109w. Drlg. below 5,993 ft.
Wyo. Pet. Corp. No. 1 Budd, C NE NE Sec. 10-29n-113w. T.D. 1,695 ft.; rebldg. rig; M.I. new boiler to res.
Texas Co.-Frontier Pet. Co. No. 1 Govt. Unit, SE SE SW Sec. 1-28n-114w. T.D. 8,194 ft.; fsg. D.P.
Yellowstone Oil Co. No. 1 Budd, C SE SE Sec. 6-30n-112w. Drlg. 210 ft.

Sweetwater County

The Salegna Oil Co. No. 1 Union Pacific, SW SW Section 11-20n-104w, North Baxter basin, was plugged and abandoned at 5,230 ft. after two unsuccessful attempts to drill by lost tools.

Mountain Fuel Supply Co. No. 1 Clark, NW SE SW Sec. 12-19n-104w. Drlg. 2,005 ft.
Mountain Fuel Supply Co. No. 1 Stone, C SW SW Sec. 18-19n-103w. T.D. 4,546 ft.; cmtd. 6-in. lnr. 3,494-4,118 ft.; tstg. W.S.O. before perforating.
Sinclair-Wyoming Oil Co. No. 84-A, SW NW NW Sec. 11-26n-90w. Cmtd. bk. to 40 ft. to str.

Uinta County

Spring Valley Pet. Co. No. 13, CSL SE SE Sec. 22-15n-117w. R.U. to D.D. from 1,726 ft.; O.W.D.D.

Weston County

Dornacher & Neiman No. 1 Neiman, NW NW NW Sec. 6-47n-64w. Drlg. 300 ft.
Lem Johnston No. 1, NW SW Sec. 24-44n-63w. Drlg. 3,305 ft.
John Brorphy No. 1 George, SW SE NW Sec. 12-48n-64w. Drlg. 2,373 ft. in base of Minnelusa; will test Madison.
F. P. Dilger et al No. 4 Ost, CNL NE NE Sec. 25-46n-64w. Cg. in Sundance below 2,300 ft.
Hunter & Satterlee No. 1 Draper, NW NW NW Sec. 10-46n-63w. Drlg. 200 ft. in Thermopolis sh.
Kroker et al No. 2, CNL NE NW Sec. 31-47n-63w. Drlg. 160 ft.

MONTANA

Carbon County

R. R. Tarrant No. 2 McKay, C SE NW Sec. 4-6s-18e. T.D. 1,515 ft.; U.R. 10-in.; top Frontier 1,200 ft.; small wtr. with S.G.; (formerly No. 3 Govt.).
Alex Beaton No. 1, CSL SE SE Sec. 23-6s-23e. Drlg. 1,600 ft. in 8¼-in. hole.
Miracle Oil Co. No. 2 Govt., CWL NE SE Sec. 3-6s-23e. T.D. 2,381 ft.; fsg.; tools stk. at 1,600 ft.

Cascade County

C. Leonard Smith No. 1-A Smith-Schwingle, NE NE SW Section 14-22n-2e, a test on the Benton Lake dome, was plugged and abandoned at 850 ft. in red shale above the Sunburst sand.

Fallon County

Montana-Dakota Utilities Co. No. 137 Govt. Unit 7, NE SW SW Sec. 10-6n-60e. Drlg. 670 ft. in Bearpaw; 10¾-in. at 104 ft.; (first report).

Glacier County

Cut Bank had three completions and two new operations. One of the completions, the Glacier Production Co. No. 3 Corrigeux, C SE SW Section 21-33n-5w, is of more than ordinary interest as it is the only well in the field producing from two horizons and one of the largest completed this year. It swabbed 516 bbl. the first 24 hours and at the end of that period at the rate of 16½ bbl. per hour. Total depth is 3,013 ft. It had the Sunburst zone at 2,894-2,976 ft. and before drilling was completed it flowed and swabbed 165 bbl. the first 11 hours at 2,894-2,930 ft. Additional saturation was found in the Sunburst below that depth and it swabbed at the rate of 8¼ bbl. per hour. The Cut Bank sand was at 2,985-3,012 ft. The 8⅝-in. was cemented at 2,894 ft. and 116.7 ft. of liner was landed at 2,986 ft. Elevation is 3,932 ft. This is the first commercial well in the Sunburst field, although the sand has had small shows of oil in a number of wells.

The Santa Rita Oil & Gas Co. No. 2 Government, C SE NE Section 29-33n-5w, swabbed 90 bbls. the first 14 hours at 3,066 ft., total depth, from the Cut Bank sand at 3,030-65 ft. The main pay was 3,055-65 ft. The Sunburst at 2,985-3,002 ft. had a show of oil.

K. D. Pardee No. 4 Tribal-179, SE NE SE Section 12-32n-6w, was completed at 2,912 ft., total depth, but was not tested. The Sunburst at 2,790-2,800 ft. was dry. The Cut Bank at 2,858-87 ft. was dry and the lower Cut Bank was at 2,887-2,905 ft. with the main pay in the last 11 ft. Oil stood 1,700 ft. in the hole.

R. C. Tarrant No. 5 Rieckhoff, CWL NW NE Sec. 36-32n-6w. Loc.; (first report).
Glacier Prod. Co. No. 1 Jaeger, C NW NW Sec. 15-32n-5w. Loc.; (first report).
R. C. Tarrant No. 8 Getty, CWL NW SE Sec. 15-34n-6w. Spdg. 280 ft.
Nadeau Bros. No. 2 Govt., C SW NW Sec. 24-37n-5w. Drlg. 2,685 ft.
Santa Rita O. & G. Co. No. 2 Jordan, CNL NW SE Sec. 7-32n-5w. Drlg. 1,900 ft.

(Continued on Page 107)

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Eastern Field Report

By STAFF CORRESPONDENT

Deep Tests in Lower Fields Yet Without Developments

PITTSBURGH, Pa., June 19.—No important developments in the deep tests drilling in the lower eastern fields were reported during the week.

In Athens County, Ohio, C. P. Bowman completed No. 5 James Rogeski, in Section 12, Lodi Township, in the second Berea sand at 1,718 ft. It is a gas well gaging 150,000 cu. ft. a day.

In Gallia County, Halliday and others completed a test on the J. E. Murray farm in Section 29, Addison Township, in the Berea sand at 1,443 ft., which with no oil showing, has a volume of 50,000 cu. ft. of gas a day.

In Jefferson County, N. E. Ellis completed No. 7 James Allefer, in the SE¼ Section 29, Saline Township, in the Berea sand at 1,305 ft. It flowed about 10 bbl. a day since shot.

In Medina County, the Dymo Oil Corp. completed three more wells on the W. H. Ripley farm in Section 13, Chatham Township, in the Berea grit. The Nos. 0-4, 0-11, 0-20 were bottomed at 582, 588, and 580 ft., respectively, and all had a good showing of oil. They will be used for water input wells in a water-flooding project.

In Cuyahoga County, Benedum & Trees completed No. 1 J. V. Whitbeck, in Highland Heights village, in the Newburg sand and are shut down for shot and test. Their test on the Jesse Killoran farm is drilling at 2,450 ft. and should reach the Newburg this week.

SOUTHWEST PENNSYLVANIA

One gas well was completed in Southwest Pennsylvania during the week. In lower Clarion County, Apollo Gas Co. completed the second test on the A. A. Brinker farm, in Porter Township, in the Murraysville and Hundred Foot sand, total depth 1,292 ft. It has a volume of 107,000 cu. ft. of gas a day.

In Armstrong County, this company is down 1,302 ft. in a test on the Edgar Harkleroad farm, in Boggs Township, with the Seventy Foot sand at 886-1,186 ft. and some gas which exhausted itself at 1,173 ft. Its test on the Drohn heirs farm is drilling at 440 ft.

In Cowanshannock Township, Armstrong County, J. C. Sefton and others have a rig on the John Sowers farm. Ed Young and others are drilling at 925 ft. on the Wilda McCurdy farm. L. F. Watson and others drilling at 1,625 ft. in the Jacob Harkleroad test; Louden Drilling Co. is rigging up to deepen the R. H. Goldstrom test. Equitable Gas Co. cased at 1,069 ft. in the D. W. Raraigh test. Peoples Natural Gas Co. was fishing for rope knives at 3,460 ft. in No. 1 Jacob Wagner.

In Manor Township, Armstrong County, John Wray & Co. is drilling at 2,330 ft. on the John Guthrie farm. In Boggs Township, this operator has moved in on the Samuel Yockey farm. In Plumcreek Township, T. W. Phillips Gas & Oil Co. is drilling at 1,715 ft. on the C. H. Shaffer farm. In Wayne Township, Galbreath Drilling Co. is drilling at 700 ft. in the James Gallagher test.

Indiana County

In South Mahoning Township, Indiana County, T. W. Phillips Gas & Oil Co. has reached 2,560 ft. on the Elmer Steel farm. In West Mahoning Township, Phillips is down 245 ft. on the Thomas Steffey farm, and 1,370 ft. in a test on the Sarah Lewis farm.

In Washington Township, Equitable Gas Co. is drilling at 2,611 ft. on the J. J. Potts farm. In Clarion County, Owens-Libby-Owens Gas Department is drilling at 3,331 ft. on the J. Simpson farm in Clarion Township, with a show of gas in the Thirty Foot and Speechley sands.

Greene County

In Greene Township, Greene County, Brummage & Brummage made a location on the H. Durr farm. In Richhill Township, Manufacturers Light & Heat Co. is down 1,025 ft. in No. 2 Barnett Wiley.

Equitable Gas Co. No. 2 Mrs. George Phillips, in Center Township, is shut down after cleaning out to deepen from 2,328 ft. In Greene Township, Fred Garrison spudded in and started drilling No. 1 Henderson Coal Co. In Nicholson Township, Fayette County, Duquense Gas Co. has a rig up on the John P. Demaske farm.

Washington County

In Morris Township, Washington County, Union Gasoline & Oil Corp. is building rigs for No. 3 J. B. Andrews and No. 3 Laura and G. L. Craft.

In North Franklin Township, E. H. and J. B. Tague are drilling at 1,075 ft. in No. 15 Adaline D. McKennan, with the Big Dunkard sand at 972 ft. and a show of gas at 1,038 ft. In South Franklin Township, Harry Williams rigged up No. 3 Jason Buchanan.

In Amwell Township, Shivers & Co. is drilling at 1,970 ft. in the Morgan Prigg test. In Mount Pleasant Township, McGuigan & Co. had reached 675 ft. in the Alvin Stewart test. Greensboro Gas Co. was moving in tools for No. 3 Hillen.

Deep Tests

On Chestnut Ridge, Springhill Township, Fayette County, the test of the L. J. Houze Convex Glass Co. was bottomed at 7,826 ft., or below the Oriskany sand at 7,699-7,780 ft. There was no gas except the small showing in the Onondaga lime about 7,609 ft. It will, however, be shot with 40 qt. this week.

In Armstrong County, the well of the Peoples Natural Gas Co., on the Lowry Martin farm on the Greendale anticline in Wayne Township, is drilling at 6,435 ft., or 250 ft. below the base of the Tully lime. No gas pockets have been struck to date in the Marcellus shales and drilling has been slow due to testing with pilot hole in advance of the regular tools.

In Beaver County, the Columbian Fuel Co. well on the Abbie Linnenbrink and others lease in Rochester Township, is drilling at 3,660 ft. in slate and shells.

WEST VIRGINIA

Two small producers were completed in West Virginia. In Ritchie County, the M. & Y. Oil Co. No. 4 Sada McGinnis in Clay district was reported as dry. However, after letting the hole stand for a week it was shot and now is making 4 bbl. a day.

In Wirt County, W. C. Patterson completed No. 25 Robinson Petroleum Co. in Clay district in the Cow Run sand at 600 ft. and it is good for 1 bbl. a day.

Gas Wells

In Marion County, the Victor Oil & Gas Co. deepened No. 1 Elmer H. Talkington in Lincoln district through the Fifth sand to 2,885 ft. It is a gas well gaging 60,000 cu. ft. a day.

In Pleasants County, A. M. Cooper and others drilled a test on the Hattie Rawson farm in Jefferson district through the Squaw sand to 1,806 ft., and it was a dry hole.

In Ritchie County, the Pittsburgh & West Virginia Gas Co. deepened No. 4697 E. R. Taylor from 1,995 ft. to 2,035 ft., the Big Injun sand. Before deepening, the gage was 31,300 cu. ft. of gas a day which was increased to 91,600 cu. ft. of gas a day. It is in Clay district.

In Roane County, United Fuel Gas Co. completed No. 4834 M. E. Goans, in Walton district, at 2,140 ft., as a gas well good for 116,000 cu. ft. a day, at 2,090-2,124 ft. In Harper district, Big Branch Oil & Gas Co. (L. L. Reed and others) completed a gas well on the Jonathan Carpenter farm in the Salt sand at 1,675 ft. and it gages 500,000 cu. ft. a day.

Oriskany Gas Field

In the Oriskany gas field in Kanawha County, United Carbon Co. completed a well on the A. H. Campbell and others farm in Poca district at 4,997 ft., with Corniferous lime topped at 4,868 ft.; Oriskany 4,974 ft. and a final gage of 9,828,000 cu ft. a day. This company's test on the D. D. Slater and others farm is drilling at 2,376 ft.

In this district, Columbian Carbon Co. is rigging up on the A. H. Campbell farm, and has reached 1,000 ft. on the Celeste Parcell farm. Brawley-Reid Oil & Gas Co. is drilling at 1,788 ft. in the A. L. Campbell test; Mullins Gas Co. at 1,864 ft. on the Johnson-Carney farm; Meigs Development Co. at 2,900 ft. in the E. P. Higginbotham test; Spartan Gas Co. at 4,760 ft. on the Burdette-Haston farm; Godfrey L. Cabot, Inc., at 1,520 ft., No. 2 Putnam; at 1,790 ft., in No. 3 D. Holmes Morton; at 1,660 ft. in No. 2 J. L. McLean.

United Fuel Gas Co. is down 1,752 ft. in No. 4831 on the B. C. Gillespie and others land, with rigs going up on locations for tests on the W. J. Glass and C. T. Tolley farm, D. C. Ingram and others farm, and the A. A. Beane and others farm.

In Elk district, the final gage in the test of the Poca Fork Oil & Gas Co. on its fee test was 2,705,000 cu. ft. of gas a day from a total depth of 5,245 ft. after a 60-qt. shot. Here, the Columbian Carbon Co. started drilling the Lelia Hanna test and has reached 1,200 ft. in the Mose Pushkin test.

In Union district, Guy B. Ray is down 695 ft. on the Chloe F. Given farm; Ajax Gas Co. at 2,900 ft. in the Perry Marks test; Cameron Producing Co. has a rig standing on the J. W. Casdorph farm.

Outside Deep Tests

In Pleasants County, the well of the Columbian Carbon Co. on the consolidation of the N. L. Ervin, Edward Hammat, and Giles Hammat heirs farm, in Grant district, is drilling at 5,287 ft., or 58 ft. in the Oriskany sand, with no showing of oil or gas.

In Jackson County, Joe Rubin and others are drilling at 1,780 ft. on the E. W. Brown farm, north of Ravenswood. In Ripley district, Columbian Carbon Co. is building rig on the John F. Parsons farm, northeast of Ripley.

In Washington district, Jackson County, United Carbon Co. No. 4, on the Elizabeth W. Perkins farm, is drilling at 3,230 ft. In Ripley district, Everett Starcher and others made a location on the Rosa Boggess and others farm, elevation 739.77 ft., which will be drilled to the Oriskany sand.

In Boone County, Owens-Libby-Owens Gas Department is still shut down at 5,923 ft. in No. 13 Bull Creek Coal & Land Co., in Peytonia district, waiting for a new line.

New Work

In Brooks County, Wheeling Steel Co. made a location for No. 103 fee, in Cross Creek Township, elevation 720 ft. In Braxton County, Pittsburgh & West Virginia Gas Co. has a rig up for No. 7677 E. F. Martin; is drilling at 525 ft. in No. 7678 G. B. Howell; at 1,670 ft. in No. 7679, same farm; and at 1,535 ft. in No. 7680 S. B. Cook.

In Cabell County, A. L. Roy and Iris Bright made a location for a second well on the C. J. Teubert farm, Guyandotte district, elevation 553.5 ft. In McComas district, Roy Gas Co. is rigging up the Oscar Adkins test.

In Clay County, Virginian Gasoline & Oil Corp. made locations for Nos. 135 and 136, on the Brown, Swann

(Continued on Page 107)

Southwest Texas District

By
F. L. SINGLETON

Jim Wells County New Pool Is Sixth Thus Far This Year

CORPUS CHRISTI, Tex., June 19.—The Jim Wells County sector of the Frio-Vicksburg trend continues to remain in the spotlight of Southwest Texas operations as preparations were made to bring in the county's sixth pool since the first of the year. The new strike is about 3 miles south of Orange Grove in the Casa Blanca grant where Texas Gulf Producing Co. is running casing in No. 1 E. E. Miller which tested 1,000 ft. of 38-gravity oil on a 14-minute drill-stem test at 5,150-55 ft. The first showing was logged at 5,093-5,101 ft., where a drill-stem test showed 350 lb. of working pressure and a slight amount of distillate. Gas sand was cored at 5,140-42 ft., shale at 5,142-45 ft., and a 10-minute test at 5,140-45 ft. tested 520 lb. of working pressure and 5 ft. of distillate. Sandy shale was cored at 5,145-47 ft., and oil sand at 5,147-65 ft. Additional showings were logged at 5,226-31 ft., 5,231-52 ft., 5,301-05 ft., and the hole was drilled to a total depth of 5,620 ft.

In view of the excellent showing of the well, the South Texas nomenclature committee of the South Texas Geological Society has named the field "Reynolds." A west offset is being started by Tom Graham and Harry Mosser, and locations for several more wells are expected to be announced next week.

Approximately 6½ miles northwest of Orange Grove, Randon Oil Co. No. 1 San Antonio Joint Stock Land Bank, Block 12, Wadsworth Survey, has attracted much attention due to an attempt to blow out while an electrical survey was being made at 5,890 ft. The well is coring ahead below 6,000 ft. and is reported to be showing some oil. Midway between this well and Orange Grove, W. R. Quinn and others No. 1 Pundt which looms as the discovery well of another field, is drilling below 5,200 ft., and the hole will be drilled to a depth of 5,400 ft. before a production test is made at 4,731-70 ft., where a drill-stem test showed 950 lb. of working pressure and a slight amount of distillate. Seven-inch casing was cemented at 4,751 ft. and contributions were made by various companies to deepen the hole to the Frio-Vicksburg formation.

The newly opened Ben Bolt field was assured of its second producer as an unusually thick sand section was cored in Callaway, Reese & Dunn No. 1 M. W. Smith, about 1,000 ft. east of production. The sand was topped at 5,237 ft., 4 ft. lower than in the discovery well, and 51 ft. of sand was cored to a total depth of 5,288 ft. where casing has been cemented. Mrs. R. B. Bryant and O. B. Saner staked location for No. 1 M. W. Smith, 738 ft. east of this well, while H. H. Howell is rigging up for No. 1-A Reed & Lindsay, an outpost southeast of the Alice field.

Wildcat activity in Nueces County is showing an increase as six new operations are getting under way. Southwest of the Bishop townsite, S.E.W. Oil Corp. has derrick up for No. 1 Dallas Joint Stock Land Bank, a projected 6,500-ft. test on a farmout lease from Humble Oil & Refining Co. in Section 148, Bishop subdivision of the Weil ranch. Northwest of Robstown, Shield Oil Co. is moving in material for No. 1 J. T. Potter in the center of Lots 7 and 8, Block 10 of Pauls subdivision of the Driscoll ranch. This is a 7,000-ft. test. Five miles southwest of Corpus Christi, Mills Bennett Production Co. is rigging up No. 1 Poenisch, in Section 14, Flour Bluff Farm and Garden Tracts.

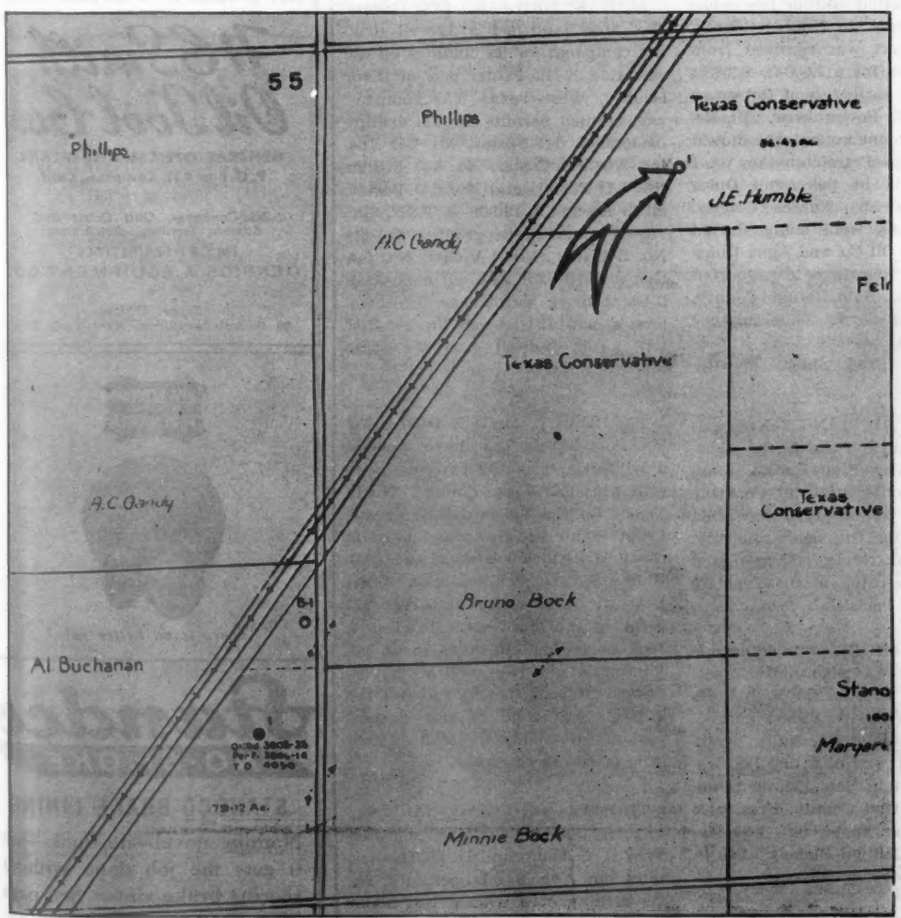
In the newly opened North Clara Driscoll field, drilling was started on three important outposts. North of the field, about 3 miles, Texas Conservative Oil Co. spudded No. 1 Wright in Section 46, while 1 mile northeast of the field, surface casing was cemented on the same company's No. 1 J. E. Humble. Two miles southeast, E. A. Graham No. 1 Taylor was preparing to core for the 3,800-ft. sand and if no showing is logged, drilling will continue below 5,000 ft.

Seaboard Oil Co. No. 1 Persons, the discovery well of the East Mathis field, San Patricio County, flowed 42 bbl. per day through a ⅛-in. choke on a 24-hour potential test. Tubing pressure was 325 lb. and casing pressure 700 lb. This is a decline in production from the initial test when the well flowed at the rate of 7 bbl. per hour. The well is producing through perforated casing at 5,260-68 ft.

In Refugio County, Humble Oil & Refining Co. No. 3 Thompson, a wildcat in the Patrick Downey Survey, is coring in sand below 5,900 ft. after two drill-stem tests showed favorable indications. Sand showing oil and gas was cored at 5,904-10 ft., and on an 8-minute drill-stem test, working pressure built up to 500 lb., and 20 ft. of mud, cut with distillate, was recovered. Another test at 5,910-16 ft. tested 400 lb. of working pressure, 60 ft. of distillate and 840 ft. of salt water. Southwest of the La Rosa field, Hewitt & Dougherty are drilling below 3,000 ft. on No. 2-A Rooke, 1½ miles southwest of production in the J. M. Aldrete Survey.

William Nichols and others No. 1 Graham, the discovery well of the Chiltipin field, Duval County, is expected to be killed and recompleted as the well is showing dry gas while cleaning out through a ½-in. choke under a tubing pressure of 700 lb. and casing pressure 1,500 lb. The hole is bottomed at 4,838 ft., and the well is testing through perforated casing at 4,784-90 ft. On a recent drill-stem test at 4,782-98 ft., working pressure built up to 85 lb., and 650 ft. of pipe line oil was recovered. Two interesting wildcats were scheduled for abandonment. East of the Fitzsimmons field, R. L. Wheelock No. 1 Serna is shut down at 4,805 ft. with no shows reported, and the hole may be carried deeper. One mile northeast of the Benavides field, Parr Drilling Co. No. 1 Villareal was scheduled to be abandoned at 6,016 ft.

In the Laredo district and located 1 mile east of the West Cole field, Webb County, Magnolia Petroleum Co. No. 5 Volpe-Benavides, swabbed oil and wash water from sand at 2,458-66 ft., and it is reported that the well is being rigged up to pump. On a drill-stem test at 2,456-68 ft., 200 ft. of oil was recovered and working pressure built up to 27 lb. Gordon W. Johnson No. 1 Mabel Adami, the discovery well of the Adami field, pumped 111 bbl. of oil on a 24-hour potential test. The well is producing from 9 ft. of sand bottomed at 999 ft., the total depth.



W. W. Zingery Maps, Houston

North Clara Driscoll field, Nueces County, showing location of important outpost well of Texas Conservative Oil Co.

SOUTHWEST TEXAS COMPLETIONS IN PROVEN FIELDS

Aransas-San Patricio Counties

McCampbell field: Bay Tex Oil Corp. No. 5 Conn Brown, perforated casing 7,138½-57½, 120 bbl., ¼-

(Continued on Page 114)

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Among the Drilling

GEORGE ECHOLS was preparing to make a production test of No. 1 L. D. Fontenot, a wildcat, drilled jointly with Hebert & Smith. The well is west of the North Cheek field, Jefferson County, Texas, and 5½-in. casing was cemented at 8,007 ft., after an electrical survey and sidewall cores showed favorable indication in a sand section at 7,870-7,906 ft. In the University field casing is being cemented on Echols No. 1 Evan Duplantier, bottomed at 6,506 ft.

WHITMAN DRILLING CO. is preparing to make a drill-stem test on Nelson & Young and others No. 1 Stepan, an outpost well, about 1½ miles south of the West Ranch field, Jackson County, Texas. The hole is bottomed below 5,150 ft., and slight showing of oil and gas are reported to have been logged.

ALLEN & MORRIS are preparing to start operation on four new wells in South Texas. In Nueces County, Texas, contract was received from Shield Oil Co. for a 7,000-ft. wildcat to be drilled northwest of Robstown on the J. T. Potter lease. In Refugio County one rotary was moved in for Phillips Petroleum Co. No. 1 Toland, while in the Agua Dulce and Luby fields, Nueces County, two operations were being started for Seaboard Oil Co. and Agua Dulce Oil Co. Two operations are reported in the La Rosa field, Refugio County, for Coronado Corp., while another operation is reported in Nueces County for Fred Shield on the Sasse lease.

NICKLOS DRILLING CO. is rigging up for a deep test in the Abbeville field, Vermilion Parish, Louisiana, for Continental Oil Co. One operation is reported in the Villa Platte field for the same company, while another rotary is being used on a workover job in the Tepetate field, Acadia Parish.

JACK FRAZIER is moving one of his rotaries to Polk County, Texas, for a Wilcox test, on the S. J. Bergman lease in the A. Viesca Survey. The well is about 3⅛ miles northeast of No. 1 Smith, a dry hole recently drilled in San Jacinto County. In Fort Bend County, Frazier is rigging up for an 8,000-ft. hole, located on the Lillian Blakely lease in the John Frederick Survey.

A. T. McDANNALD and R. Y. Smith, of Houston, Tex., who have operated for many years as drilling contractors and producers under the name of Smith & McDannald, have dissolved partnership and hereafter will operate separately as producers and contractors. Mr. McDannald will operate under the name of McDannald Oil Co. and will continue to maintain offices off the Telephone Road, while Mr. Smith has opened offices in the Esperson Building. The operators own 12 rotaries and under the new setup, 7 of these will be operated by McDannald Oil Co. and the balance by R. Y. Smith. During the week McDannald Oil Co. opened a new producing area on the southeast flank of the Dickinson field with the completion of Pure Oil Co. No. 1 Kohfeldt. Two operations are reported in the Magnet-Withers area, Wharton County, one at Port Barree, and one at Danbury for McDannald Oil Co. and two at the Eureka and Raceland fields for Tide Water Associated Oil Co.

M. B. K. DRILLING CO., Odessa, Tex., has launched a 12-well drilling campaign for its holdings on the east side of the Foster pool of Ector County, West Texas. The company was granted permits for the drilling of its No. 6-C Foster, No. 2-D Foster, No. 3-D Foster, No. 4-D Foster, No. 5-D Foster, and No. 6-D Foster, all in Section 8, Block 42, T.&P. Survey. Permits were granted for its No. 3-A Gist, No. 4-A Gist, No. 5-A Gist and No. 2-B Gist, all in Section 9, same block and survey. The company's No. 1-C Gist and No. 2-C Gist will be in Section 4 of the same block and survey.

TAUBERT & McKEE DRILLING Co., Fort Worth, Tex., have spudded a wildcat test in the extreme western part of Jack County, North Texas, for the Nelson Oil Syndicate. Location for the test was staked in the J. W. Bridwell lands of the T. B. Riddle Survey, 2 miles west of the Bryson townsite. Nelson holds 271 acres in the tract, with Taubert & McKee holding 316 acres in an adjoining lease. The wildcat is contracted to 3,200 ft. and will test the 2,800-ft. pay zone of the western part of the county and the 3,100-ft. zone of the Bryson pool.

THOMAS DRILLING CO., San Angelo, Tex., has received contract from B. C. Mann and D. D. Thomas, both San Angelo oil operators, for the drilling of a wildcat test about 20 miles west of Austin and in Hays County. Contract depth is 3,000 ft. and the drilling company is moving

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Contractors

in a spudder, actual drilling expected to commence within the week. Test will be the operators' No. 1 Reeder, R. Vaughan Survey, about 4 miles east and slightly north of a dry hole on the Elsnor lands, Cockburn Survey. It is on a 10,600-acre block with J. V. Cullen having done the geological work.

JENKINS DRILLING CO., Kilgore, Tex., has been awarded a turnkey contract for the drilling of a new test for the Golden Rod Drilling Co., Henderson, in the Lone Star pool, near Recklaw in the extreme eastern part of Cherokee County, eastern Texas. The operation will be Golden Rod No. 1 Hall Wood, staked in the center of a 40-acre tract in the J. I. Sanchez Survey. The Lone Star pool, at the present time, consists of two wells out of the three originally drilled by John R. Bunn. The new test is 1½ miles northeast of the Bunn No. 1 Bowling, one of the two producing wells. Location is on a block of 900 acres which the Golden Rod company acquired from George McCamey.

BUNN DRILLING CO. (John R. Bunn) East Central Texas wildcat operator and drilling company, has received contract for the drilling of a new wildcat in Freestone County and is starting another of his own in the same county. The contracted test is for W. H. Kelling and will be No. 1 Bounds-Longbotham, a mile northwest of Wortham and on an 87-acre tract in the R. B. Longbotham Survey. It has been spudded. The operator's own wildcat, Bunn No. 1 S. Jeffries, is 8 miles northeast of Streetman and in the W. A. Bishop Survey, and is drilling below 1,400 ft.

CRON & GRACEY received contract for a 7,000-ft. test from Moore & Ahern for No. 1 Victoria Land & Loan Co., a 7,000-ft. test east of Vanderbilt in the P. Scott Survey, Jackson County, Texas.

TRINITY DRILLERS, INC., received contract from John Mayo and others for No. 1 J. H. Tucker, 1½ miles northwest of the Vanderbilt field in Jackson County, Texas. The well is being rigged up for a 7,500-ft. test.

CROSBY DRILLING CO. is preparing to spud No. 1 Harvey and Allee, an outpost test in the Francitas field, Jackson County, Texas, while another rotary has been moved to the University field, East Baton Rouge Parish, Louisiana, for a joint test with T. G. Markley.

Drilling crew on a J. R. Sharp, drilling contractor of Tulsa, rig in the Wasson field, Gaines and Yoakum counties, West Texas: Bob Blair, J. O. Parks, A. W. May, S. E. Taylor and E. A. Connley, driller

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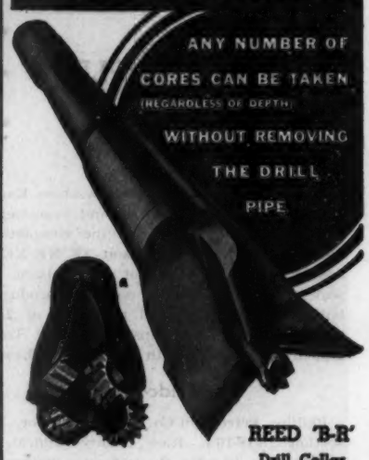

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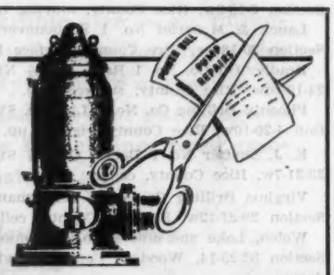

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Kansas Developments

By
DAL DALRYMPLE

Phillips County Well Makes Potential of 827 bbl. Daily

Phillips County in far northwestern Kansas next to the Nebraska line definitely and prominently entered the oil-producing list with the completion of Blue Stem Oil Co. No. 1 Donaldson, SE NE NE Section 25-5s-18w, 11 miles south of Phillipsburg, the county seat. The well made a potential production of 827 bbl. a day after an acid treatment of 2,000 gal. It produces from the Kansas City, or Lansing, lime topped at 3,080 ft. with total depth 3,164 ft.

Wildcat Reports

Phillips Petroleum Co. No. 1 Hammer, NW NW SE Section 16-18-10w, Rice County wildcat, found Arbuckle lime at 3,275 ft., and was dry and abandoned at 3,283 ft., total depth.

Continental Oil Co. No. 1-B Hamilton, SW SW NE Section 19-18-7w, wildcat in Rice County, had Arbuckle lime at 3,286 ft., was bottomed at 4,180 ft., took 200 bbl. of water in 35 minutes on vacuum and was completed for water disposal well.

Babcock Oil Co. No. 1 Copeman, S½ S½ SE Section 7-10-2w, wildcat in Ottawa County, topped Simpson zone at 3,631 ft., Wilcox sand 3,675 ft., set 7-in. casing at 3,673 ft., was bottomed at 4,135 ft. in granite wash, and was dry and abandoned.

New wildcat operations in Kansas included the following:

Frank Hollow and associates No. 1 Guldner, SE cor. Section 5-18-9w, Rice County, moving in material.

Lauck & Moncrief No. 1 Schoonover, SW SW SE Section 20-18-9w, Rice County, surface hole.

Bradley Oil Co. No. 1 Ruhl, C E½ NE NW Section 24-19-10w, Rice County, surface hole.

Phoenix Drilling Co. No. 1 Linville, SW SW SE Section 4-20-10w, Rice County, rigging up.

E. J. Shaffer No. 1 Bauer, C W½ SW SW Section 23-21-7w, Rice County, cellar.

Virginia Drilling Co. No. 1 Teiperman, NE NE SW Section 29-21-12w, Stafford County, cellar.

Welch, Lake and others No. 1 Tipton, SE NW SW Section 32-25-14, Woodson County, spudded and shut down.

Keriyn Oil Co. and others No. 1 McMoran, C SE NW Section 25-34-16w, Comanche County wildcat, was drilling below 800 ft.

Rice County

A ½-mile southeast extension of the Wherry pool, Rice County, was completed at H. B. Garden and others No. 1 Hauschild, C W½ E½ SE Section 15-21-7w. It drilled conglomerate pay at 3,380-91 ft., total depth, pumped 249 bbl. of oil in 8 hours and made 24-hour potential of 748 bbl.

In the Cramm pool, McPherson Drilling Co. No. 2 Cramm, C E½ E½ NW Section 15-19-9w, was completed for echometer potential of 3,549 bbl. of oil daily. It had Arbuckle lime at 3,195-98 ft., total depth, and pumped 302 bbl. of oil in 24 hours on preliminary test.

Sinclair Prairie Oil Co. No. 2 Smith, SE SE NE Section 1-19-8w, Geneseo field, was completed in Arbuckle lime at 3,273-75 ft., total depth. It swabbed 152 bbl. of oil in 8 hours, pumped 155 bbl. of oil and 45 bbl. of water in 8 hours and made 24-hour potential of 464 bbl. of oil, with 125 bbl. of water. It extends the field one location southward.

Skelly Oil Co. No. 2 Sledd, SW SW SW Section 27-19-9w, Campbell pool, pumped 486 bbl. of oil in 8 hours, making 24-hour potential of 1,459 bbl. Production was from Arbuckle lime at 3,173-3,207 ft., total depth.

The third producer in the Midway pool was completed at Gulf Oil Corp. No. 1 Kirkendall, C E½ SE SE Section 5-20-9w. After penetrating Arbuckle lime at 3,249-72 ft., total depth, it pumped 194 bbl. of oil in 8 hours, making potential of 583 bbl. of oil daily.

George W. Hinkle No. 2 Truesdell, SW NW NW Section 34-19-10w, was a location in the Campbell pool. Same operator's No. 1 Peterson, C S½ SW NW Section 4-20-9w, on a Gulf Oil Co. farmout, was moving in material.

Cowley County

A. D. Barnett and others No. 2 Waite, SE NW SW Section 21-31-4, Hittle pool, Cowley County, found Arbuckle lime at 3,350-57 ft., total depth, and was completed for 24-hour potential of 8,623 bbl. of oil pumping and flowing.

W. L. Hartman and B. B. Blair No. 6 Waite, SE SE SW Section 21-31-4, flowed 1,536 bbl. of oil in 8 hours and made daily potential of 4,608 bbl. Production was from Arbuckle lime pay at 3,292-3,304½ ft., total depth.

McKnab & Blair No. 1 Waite, NE NE NW Section 28-31-4, topped Arbuckle lime at 3,339 ft., total depth 3,350 ft. in lime, flowed 2,173 bbl. of oil in 8 hours and made 24-hour potential of 6,528 bbl.

W. L. Hartman and B. B. Blair No. 7 Waite, SW SE NW Section 21-31-4, considered as the largest producer completed in Kansas in recent years, vieing with the big gushers completed in the Augusta-El Dorado field in the heydey of Butler County fields, was credited originally with draw-down potential of 36,000 bbl. daily. This was adjusted downward to 22,000 to 25,000 bbl., and the well then was completed for 10,000 bbl. daily on top allocation after computation by bottom-hole pressure. It found Arbuckle lime at 3,341 ft., and was bottomed at 3,351 ft.

Texas Co. No. 5 Goodrich, SW SW SE Section 21-31-4, was a location.

Russell County

Carter Oil Co. No. 1 Sellens, S½ S½ SW Section 17-15-13w, South Coralena pool, Russell County, had Arbuckle lime at 3,224-26 ft., total depth, and made depthograph potential of 811 bbl. of oil in 24 hours.

Cities Service Oil Co. No. 3-C Tittle, SW SW NW Section 13-15-14w, Trapp field, was acidized with 1,000 gal., pumped 16 bbl. of oil in 8 hours and made potential of 48 bbl. It had Arbuckle pay at 3,346-56 ft.

Same company's No. 2-D Tittle, NE NW NE Section 14-15-14w, found Arbuckle lime at 3,065-3,102 ft., total depth, was acidized, pumped 557 bbl. of oil in 8 hours and made potential of 1,672 bbl.

Gulf Oil Corp. No. 9 Mollie, SE SW SE Section 25-15-14w, was completed in Arbuckle lime at 3,296-99 ft., total depth, oil rose 3,000 ft. in the hole in 2½ hours, and it made bomb potential of 2,488 bbl. of oil.

Skelly Oil Co. No. 3 Colliver, NW NW SE Section 28-14-13w, Letsch pool, had Lansing lime pay at 3,861-97 ft., total depth, was acidized, pumped 481 bbl. of oil in 8 hours and made potential of 1,444 bbl.

Stearns Drilling Co. and Vernon Oil & Gas Co. No. 1-C Olson, NW NE NW Section 27-14-14w, was drilling below 2,450 ft.

Shell Oil Co. No. 1 well, NW NW SE Section 13-15-13w, Anschutz area, was a location.

Barton County

Sinclair Prairie Oil Co. No. 3 Prusa, NW NW NE Section 20-16-11w, Prusa pool, Barton County, found pay in LaMotte sand at 3,302-13 ft., total depth. It swabbed 222 bbl. of oil in 7 hours, pumped 150 bbl. of oil and 58 bbl. of water in 8 hours, and made daily potential of 449 bbl. of oil, with 174 bbl. of water.

Lauck Petroleum Co. No. 1 Zohorsky, C N½ N½ SW Section 26-20-11w, topped Lansing lime at 3,059 ft., cherty conglomerate 3,306 ft., and was dry and abandoned at 3,382 ft., total depth. It defines the South Silica pool on the southwest.

Crown Petroleum Co. No. 1 Ernsting, SE cor. Section 1-20-12w, ¾ mile southeast of the Wolf pool, was a location.

E. K. Carey and others No. 1 Seyfert, SW SW NW Section 26-16-11w, apparently has extended the Prusa pool ⅝ mile southward. It found Arbuckle lime at 3,343-50 ft., total depth, and oil rose 2,300 ft. in the hole in 10 hours. It was to be acidized and tested.

McPherson County

Westgate-Greenland Oil Co. No. 1 Henne, NW SE SW Section 18-17-1w, was completed for potential of 848 bbl. of oil in 24 hours, extending the Roxbury pool in McPherson County ½ mile southward. It had Mississippi lime pay at 2,670-75 ft., total depth, and pumped 282 bbl. of oil in 8 hours.

H. & M. Drilling Co. No. 1 Miller, C SE SE Section 24-19-2w, Ritz-Canton pool, McPherson County, topped Mississippi lime at 2,917 ft., had a showing of gas at 2,925-30 ft., and showing of oil at 2,983 ft., but was dry and abandoned at 2,995 ft., total depth.

Same company's No. 1 Miller, C SE SE Section 24-19-2w, new test in the Ritz-Canton area, was drilling with cable tools below 1,400 ft.

Simon Lebow and others No. 2 Becker, SE SE NE Section 36-19-2w, another new operation, was drilling below 850 ft.

Western Kansas Oil & Refining Co. No. 2 Union, SW NE SW Section 18-17-1w, Roxbury pool, was a location. Same operator's No. 3 Union, NE SW SW Section 18-17-1w, was a location.

Max Reynolds and others No. 1 Krehbiel, C SW NW Section 25-19-2w, had spudded. Johnson & Cunningham and others No. 1 Keefer, NW NW SW Section 25-18-1w, ½ mile northeast of the North Canton pool discovery well, was rigging up machine.

Estimated Daily Production

Estimated daily production for Kansas for the week ending June 17, and for the preceding week, was as follows:

	Barrels	
	June 17	June 10
Oxford City	1,050	925
Burrton	10,225	9,725
Ritz-Canton	5,675	5,375
Graber	2,950	2,075
Hollow-Nikkel	2,725	2,625
Lerado	650	625
Voshell	1,675	1,600
Wellington	2,100	1,975
Ellsworth County:		
Lorraine	1,750	1,350
Other pools	1,855	1,210
Rice-Barton counties:		
Bloomer	2,300	1,300
Chase	5,050	4,025
Geneseo	3,150	3,300
Raymond	700	900
Silica	11,700	7,725
South Silica	1,975	1,675
Keesling	725	525
Wherry	4,200	2,925
Miscellaneous Rice	7,195	5,625
Miscellaneous Barton	8,425	8,490
Russell County	23,050	19,800
Sedgwick County	4,075	3,525
Ellis:		
Bemis	6,025	6,050
Miscellaneous	3,960	4,305
Kingman County	580	685
Stafford County	5,265	4,685
Greenwood County	8,800	8,900
Butler County	17,775	17,100
Other fields	22,945	22,620
Total Kansas	168,550	151,625

Butler-Greenwood Counties

Smith & Polhamus No. 1 Albers, SE NW SE Section 21-25-4, Pierce pool, Butler County, topped Mississippi lime at 2,541 ft., had a hole full of water at 2,757-59 ft., total depth, and was abandoned.

Richmond Drilling Co. No. 4 Rose, NE SE NW Section 17-27-6, Leon pool, Butler County, pumped 8 bbl. of oil and 30 bbl. of water in 24 hours and was com-

pleted in Mississippi lime at 2,750-61 ft., total depth.

Sinclair Prairie Oil Co. No. 57 Browning, C W½ W½ Section 20-22-10, Browning pool, Greenwood County, had Bartlesville sand at 2,328-63 ft., total depth, and pumped 25 bbl. of oil in 24 hours, completed.

Aikman & Braden No. 1-B Meyrs, NE SE SW Section 10-24-12, Hamilton pool, Greenwood County, found Mississippi lime at 1,715 ft., was bottomed at 1,763 ft., water intruded and it was plugged back to 1,754 ft. Treatment with 1,500 gal. of acid failed to help, and it was dry and abandoned.

Ellsworth County

Mid-Continent Petroleum Corp. No. 1 Ehley, SE SE SE Section 30-17-10w, North Habiger pool, Ellsworth County, topped Lansing-Kansas City lime at 2,967 ft., found Arbuckle lime at 3,249-76 ft., total depth. It was treated with 2,000 gal. of acid, pumped 236 bbl. of oil in 8 hours and made daily potential of 708 bbl.

Sedgwick-Reno Counties

National Refining Co. No. 1 Fiek, SW NW NW Section 9-27-2e, North Eastboro area, Sedgwick County, found Arbuckle lime at 3,382 ft. and was abandoned at 3,395 ft., total depth, with a hole full of water. Viola lime, the producing horizon in the North Eastboro pool, was topped at 3,260 ft.

Herndon Drilling Co. No. 1 Compton, SW SW NW Section 3-25-10w, wildcat north of Turon, Reno County, was a location on a Gulf Oil Corp. farmout. Dutton and others No. 1 Green, SE cor. Section 8-23-4w, 5 miles east of Hutchinson, Reno County, had erected derrick.

Johnson County

Sagamore Oil & Gas Co. No. 2 Knabe, SE NE NW Section 29-14-22, in the area recently opened in Johnson County, on the flank of the Forest City basin, had Bartlesville sand at 715-28 ft., total depth, and produced 472,000 cu. ft. of gas daily, completed.

Spearman & Trammel No. 1 well, NE NE SW Section 15-14-22, was completed for 8 bbl. of oil daily from Bartlesville sand, depth not announced.

Miscellaneous Reports

Bay Petroleum Co. No. 1 Burnett, SE SE NE Section 12-11-18w, Ellis County, was an abandoned location.

Panhandle Eastern Gas Co. No. 1 Fowler, C SE Section 21-30-37w, and same company's No. 1 Barron, NW SE Section 34-30-37w, were locations in the Grant County sector of the Hugoton gas field.

In Stevens County, Panhandle Eastern Gas Co. No. 1 McClure, C SE Section 4-32-38w. was a location.

Phillips Petroleum Co. No. 1 Hendricks, NE cor Section 13-11-18w, ¼ mile south of the South Burnett pool, Ellis County, found saturation in Arbuckle lime at 3,353-78 ft., total depth, cemented 5-in. casing at 3,355 ft., and was testing.

In Pratt County, Skelly Oil Co. and others were moving in material for a Viola lime gas test at No. 1 Harding, C SW Section 7-28-11w, Cairo area. Location is on a community block of 14 quarter sections on which three Viola lime gas wells have been completed.

Simpson Oil Co. and Texon Oil Co. No. 1 Nelson, NE NE SE Section 14-20-16w, ½ mile west of the Pawnee Rock pool, Pawnee County, found Arbuckle lime at 3,777-3,806 ft., total depth, was acidized with 500 gal. and swabbed 10 bbl. of oil and hour. It was to be reacidized, preparatory to taking potential test.

Missouri Operations

TRENTON, Mo., June 19.—Location has been staked for a wildcat in Charlton County. North Central Missouri, by Frank Buttram, of Oklahoma City, and A. A. Ash, of Tulsa, it was reported here. It is to be their No. 1 Vance, SW SW NE Section 35-53-18w, south of the town of Keytesville. It will be drilled by J. W. Judd & Son, contractors of Martin City, Mo.

The Martin City contractors also have announced they will begin a St. Peter sand and Arbuckle lime test about June 25 on a 15,000-acre block in Adair County, held by the Mayson Oil Co., of Dallas, Tex., and Kirksville, Mo. This is a turnkey contract and the money has been in escrow since April 10, according to N. W. Judd. Exact location of the Adair County wildcat was not announced.

Bradley Brothers and Birkett & Gillespie, of Wichita, have started drilling at their second Forest City basin wildcat, in SE SE NW Section 22-58-23w, about 4 miles northeast of Chillicothe, Livingston County.

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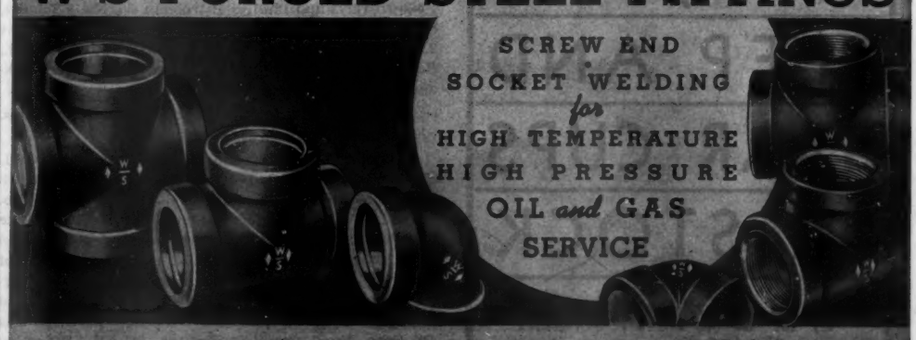

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Their No. 1 Gee, NW NW SE Section 28-60-35w, near Savannah, Andrew County, was drilling below 675 ft.

In addition to Berry Brothers No. 1 Rule, C SW SW Section 20-53-33w, eastern Platte County, two active tests were reported in southern Platte County, just north of the Missouri River. One was Missouri Valley Gas & Oil Co. No. 1 Young, C SW SE Section 30-51-34w, drilling below 120 ft. The other was Joe G. Kelly No. 1 fee, NE SW NE Section 26-51-34w, an old well being deepened from old total depth of 294 ft. It had a coarse sand at 610-15 ft., with a slight showing of oil and gas, and was drilling ahead below 665 ft.

Eastern Drilling Co. No. 1 Williams, NW NW NE Section 28-53-32w, Clay County, found gas estimated at 500,000 cu. ft. at 593 ft., but was drilling ahead in quest of oil production.

George W. Moore and others No. 1 Moss, NW SW SE Section 30-65-24w, near Princeton, Mercer County, was rigging up machine to start drilling right away. Same operators' No. 1 McQuate, NE SW SW Section 11-57-31w, near Osborn, De Kalb County, found Mississippi lime around 1,190 ft. and was drilling ahead slowly.

H. V. Elwell and associates were reported about ready to start work at their No. 1 Taylor, Section 12-62-21w, about 4 miles west of Milan, Sullivan County. Kuhn Brothers have the contract. Margay Oil Co., Skelly Oil Co., and Lario Oil & Gas Co. are contributing to the test.

Illinois Fields

(Continued from Page 86)

orders. Zephyr Drilling Co. No. 1 Long, NW SE SW Section 26-2s-1w, coring at 1,575 ft. Thompson Drilling Co. No. 1 Rosanski, NW NW SW Section 19-3s-1w, total depth 1,268 ft., tested salt water, shut down for orders. Thompson No. 1 Musial, SE SW NW Section 19-3s-1w, plugged back to 1,263 ft., tested salt water, shut down for orders.

In White County, Anding and Nation No. 1 McIntosh, C SE SW Section 31-3s-8e, shut down at an estimated depth of 3,300 ft. J. Liggett No. 1 Hon, NE NE SW Section 32-3s-14w, total depth 2,988 ft., acidized with 1,000 gal., swabbed salt water, will put on pump to try to exhaust water, McClosky lime topped at 2,970 ft.

In Clinton County, Whitcher Development Co. No. 1 Monk, NE NE SE Section 3-1n-2w, Benoist sand 1,310-19 ft., total depth, shut down. Webb and others No. 1 Hussman, NE NE SE Section 12-1n-2w, drilling at 380 ft. Paul Mosebach No. 1 Schenel, SE SE SE Section 6-1n-3w, drilled to 960 ft. and shut down.

In Wabash County, C. Washburn No. 1 Pfeifer, SW SW SW Section 13-1s-13w of second principal meridian, total depth 2,580 ft., plugged back to 2,530 ft., and set 7-in pipe, started to drill plug, but water broke in and filled the hole; after a squeeze job, waiting for cement to set to test sand topped at 1,940 ft. Colonel Hughes No. 1 Tanquary Brothers, SW SW NE Section 30-1s-13w, spudded. J. McIlwain No. 1 Pfeifer, SE NW NE Section 32-1s-5w, shut down at 105 ft. Continental Oil Co. No. 1 Schultz, SE SE NW Section 30-2s-13w, flowed 244 bbls. of oil in 24 hours and then shut in for lack of storage room; producing from Cypress sand topped at 2,467 ft., total depth 2,492 ft. William Bartlett No. 1 Gray, NW NW SE Section 30-2s-13w, drilling at 1,895 ft. Knight No. 1 Hoffman, SW NW NE Section 29-2s-13w, location. Continental Oil Co. No. 1 Schults, NE SE SE Section 25-2s-14w, drilling at 700 ft. Zeigler and others No. 1 Schultz, SE cor. NW SW Section 31-2s-13w, rig up. Eason Oil Co. No. 1 Schauf, NW SE SE Section 31-2s-13w, drilling at 1,460 ft. Hays and Phillips Petroleum Co. No. 1 Schultz, SE NW SW Section 7-3s-13w, set 5½-in. casing at 2,865 ft., total depth 2,881 ft., acidized with 1,500 gal., flowed 30 bbl. of oil in 20 minutes, shut in for tankage.

In Edwards County, Massad and others No. 1 Toops, SE NW SE Section 13-3s-10e, rig up.

In White County, Chisom No. 1 Boultinghouse, CWL SW SW Section 10-4s-14w of second principal meridian, drilled to 2,270 ft. and shut down. Sun Oil Co. No. 1 Ford, NW NE NE Section 18-5s-14w, McClosky lime at 2,998-3,008 ft., set 7-in. casing at 2,995 ft., acidized with 3,000 gal., swabbed 190 bbl. of oil and 79 bbl. of water, still swabbing. Palmer Corp. No. 1 Carmi Orphanage, NE SE SE Section 22-5s-9e, Cypress sand 2,853-82 ft., set 7-in. at 2,855 ft., drilling plug. Mazda Oil Corp. No. 1 Carmi Orphanage, SE NE SE Section 22-5s-9e, set 7-in. casing at 3,006 ft. Pipe perforated and tested salt water. Will rig up standard tools and retest. M. L. Marks No. 1 Smith, NW NW NE Section 14-5s-8e, rig up.

In Randolph County, R. T. Pendergast No. 1 Beattie, SW SW SW Section 11-5s-5w, spudded and shut down.

In Ford County, Nelson, Brown and Erp No. 1 Stroh, NE SE NW Section 19-24n-7e, drilling at 241 ft.

In Christian County, M. A. Marks No. 1 Buhs, SE SW NW Section 13-11n-1w, drilling at 1,250 ft.

In Perry County, G. H. Blankenship No. 1 Rheinecker, NW NW NE Section 3-6s-4w, drilling at 1,266 ft.

In Franklin County, M. & G. Drilling Co. No. 1 Realty Co., NE NE SE Section 26-6s-3e, shut down at 2,300 ft.

In Saline County, Coast Production Co. No. 1 Choiser, NE NW NW Section 5-8s-7e, drilling at 2,027 ft., set 6⅝-in. pipe at 2,022 ft. Kingwood Oil Co. No. 1 Allyn, SW SW NE Section 11-9s-7e, shut down at 2,599 ft. for repairs. Fredonia lime topped at 2,585 ft.

Halpenny No. 1 Swinney, SW SW NW Section 1-9s-7e, total depth 1,952 ft., shut down for orders. Jackson No. 1 Turner, SE NW NW Section 27-9s-9e, total depth 2,552 ft., fishing.

In Massac County, Marshall Drilling Co. No. 1 McGhee, NE NE NE Section 3-16s-5e, drilling at 970 ft.

In Jefferson County, I. Vawter No. 1 Kell, NW SW NE Section 9-1s-1e, Benoist sand at 2,067 ft., set 5½-in. casing at 2,037 ft., total depth 2,078½ ft., swabbed 70 bbl. of oil in 12 hours, testing.

In Adams County, L. C. Robinson and others No. 1 Fowler, SE cor. NE SE SE Section 12-2n-5w of fourth principal meridian, drilling at 470 ft.

In St. Clair County, Longoria No. 1 Schaller, NW NE NW Section 10-3s-7w, drilling at 750 ft. Carnegy and others No. 1 Winter, SE cor. NW NE Section 13-3s-7w, set 10-in. casing at 40 ft., and shut down. Greer No. 1 Fullmer, SE SE NE Section 27-2s-7w, drilling at 120 ft.

In Monroe County, Crittendon and Noelkemper No. 1 Schroeder, C S½ SE NE Section 14-2s-10w, drilling at 450 ft.

In Edwards County, McFadden No. 1 Bump, C SE SW Section 34-2s-14w of second principal meridian, rig up.

In Gallatin County, J. Garfield Buell No. 1 Tie & Lumber Co., C N½ NW SE Section 16-8s-10e, drilling at 2,792 ft.

OHIO

COSHOCTON, Ohio, June 19.—In the Ohio fields, Coshocton County yields a 100-bbl. producer in the Clinton sand. Medina County has a shallow oil well with 55 bbl. initial production, from sand the thickness of which is equal approximately to one-half the total depth of the hole. A 1,400,000-cu. ft. Clinton sand gas well was completed in the old Corning oil field in Perry County.

Athens County, Ames Township, D. T. Orndoff completed two gas wells in the second Berea, each gaging 100,000 cu. ft. open flow. The wells are No. 1 D. L. Kasler, Fraction 24, sand 1,356-67 ft. No. 2 Ceral H. Wooley, Fraction 35, sand 1,545-56 ft. In Canaan Township, Speary Oil & Gas Co. No. 1 Esther N. Linscott, Section 11, made 210,000 cu. ft. open flow gas from the second Cow Run sand at 605-26 ft.

Coshocton County, Pike Township, Wayne Moore and others No. 1 Newton Ashcraft, Section 14, flowed 100 bbl. of oil the first 24 hours after the shot in Clinton sand at 3,119-65 ft.

Gallia County, Addison Township, Addison Syndicate No. 1 J. E. Murray, Section 29, drilled 1 foot into the first Berea for 134,000 cu. ft. of gas; top of the Berea was 1,442 ft.

Guernsey County, Center Township, Frank Stranges and others No. 2 J. F. Devold, Lot 12, has 100,000 cu. ft. open flow of gas from the Berea at 1,374-79 ft.

Holmes County, Paint Township, Ohio Fuel Gas Co. No. 2 Charles Johnson, Section 2, made 100,000 cu. ft. of gas from the Red Clinton at 4,013-57 ft. Richland Township, A. F. Bryan No. 3 Milan V. Purdy, Section 17, was dry in the Berea, total depth 713 ft.

Licking County, Mary Ann Township, W. Davidson and others No. 1 J. E. Mathews, Section 25, is good for an open flow of 330,000 cu. ft. of gas from the Newburg at 2,230-44 ft. Washington Township, C. A. Davis No. 1 Emmett Davis, Lot 17, first quarter, was abandoned at 2,402 ft. A small showing of gas was had in the Newburg at 2,334 ft., but was drowned out.

Medina County, Chatham Township, Preston Oil Co. No. 31 B. B. Parent, Lot 5, Tract 16, was shot with 220 qt. in the Berea, and made 55 bbl. of oil the first 24 hours; sand at 219 to 407 ft.

Meigs County, Rutland Township, Ohio Fuel Gas

(Continued on Page 109)

Texas and Louisiana Gulf

By NEIL WILLIAMS

Wilcox Production Found in Villa Platte, Louisiana, Pool

HOUSTON, Tex., June 19.—A scheduled production test of a promising wildcat in Jefferson County together with the opening of new producing area on the southeast flank of the Dickinson field, Galveston County, and the discovery of Wilcox production in the Villa Platte field, Evangeline Parish, marked up an interesting week of development for the Gulf Coast district.

Hebert & Smith and others No. 1 L. D. Fontenot, 2½ miles southwest of the North Cheek field and just south of the old China prospect, Jefferson County, loomed as the discovery well of a new field as 5½-in. casing was cemented at 8,007 ft. preparatory to testing 36 ft. of oil sand logged by an electrical survey and confirmed by a series of side-wall cores at 7,870-7,906 ft. The side-wall cores also showed a sand section at 6,730 ft., and this horizon will be tested should the test in the 7,800-ft. zone fail. The deeper horizon is thought to be the upper Frio formation and the showing in this particular zone came as a surprise in view of the fact that this sand carried salt water in a dry hole drilled to the north, and the operators were seeking production in the basal Frio formation which produces at the North Cheek field at approximately 8,200-8,600 ft. The well is located in the H.T.&B. Survey 17 on a block of a few thousand acres with Magnolia Petroleum Co., Sun Oil Co. and Gulf Oil Corp. holding considerable protection acreage.

In the same county, several thousand feet south of the Lovells Lake field, Humble Oil & Refining Co. was preparing to make a production test of a new sand logged in No. 1-B Steinhagen which is bottomed at 7,927 ft. with 7-in. casing cemented at 7,912 ft. This is approximately 200 ft. below the producing horizon in the field proper, and the well was drilled deeper after a production test in the 7,700-ft. sand failed.

Further development around the flanks of the Dickinson field, Galveston County, was assured following the completion of Pure Oil Co. No. 1 Franz Kohfeldt, approximately 2½ miles southeast of production, which flowed 51 bbl. of 56.6-gravity distillate in 22½ hours, flowing through a 12/64-in. choke under a tubing pressure of 2,250 lb. and casing pressure of 1,000 lb. The completion was made through perforated casing at 8,495-8,505 ft. The well is in Block 1 of the T. W. Johnson Survey, and was drilled on a farmout lease from the Texas Gulf Producing Co. While the well is believed to be located on the same structure as the Dickinson field, it is generally believed that production is separated from the field proper by a faulted or graben condition such as exists in the Gillock area which adjoins the field proper to the southwest. This condition is believed more or less confirmed by an abandoned hole drilled by Humble Oil & Refining Co. on the Peters lease. The latter well was drilled to below 9,000 ft. and logged some very interesting showings.

A potential test of Patrick & Tyrell Drilling Co. No. 1 Kirby West Lumber Co. showed an initial production of 176 bbl. per day through a ¼-in. choke with tubing pressure 1,025 lb. and casing pressure 1,625 lb. The well was completed through perforated casing at 7,810-20 ft. This is the second Wilcox sand producer, and the completion extends the field about 930 ft. northwest of Shell Oil Co. No. 1 Doucette.

Eureka Defined on North

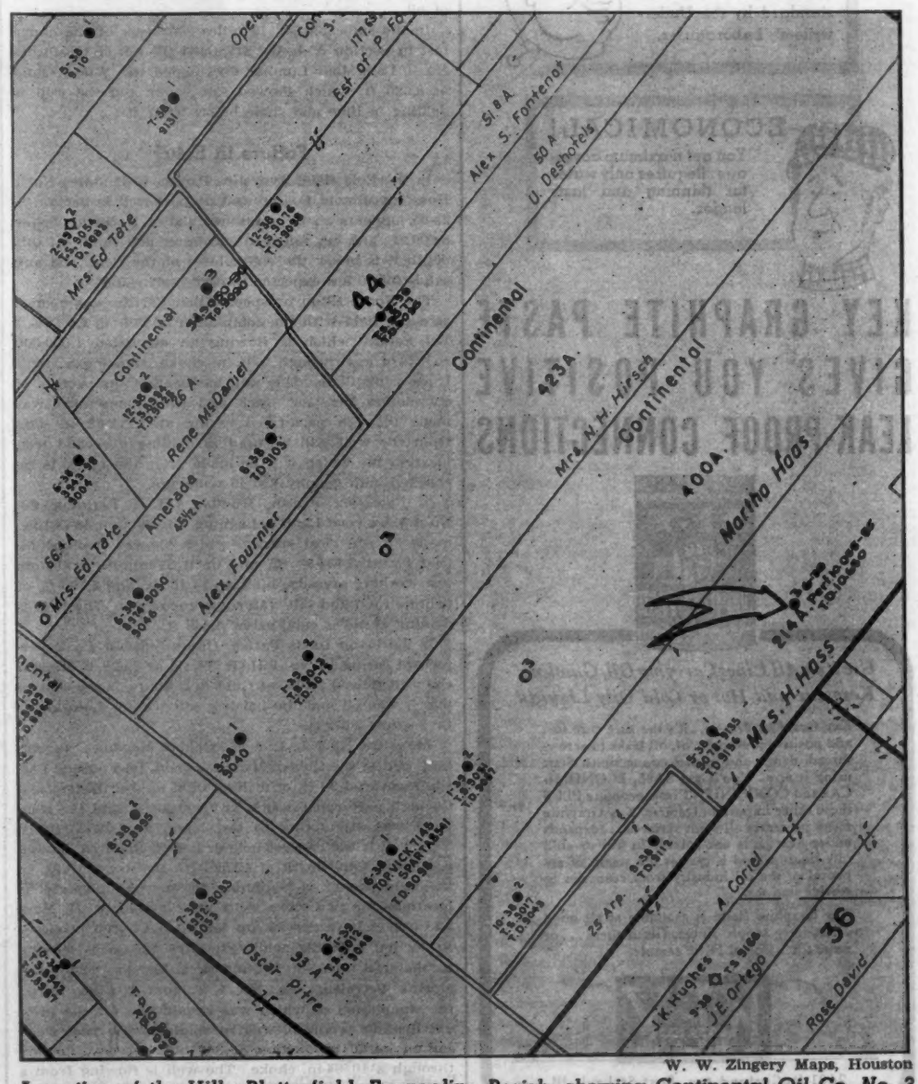
The Eureka field, Harris County, was defined to the north as M. G. Hansbro abandoned No. 1 S. A. Winship at a total depth of 8,256 ft., with no showing logged in the 7,700 and 8,100-ft. horizons. On the southeast edge of the structure three wells were in the process of completion. Tide Water Associated Oil Co. No. 2-B Lackner, H. Reinerman Survey, is bottomed at 8,090 ft., with oil sands logged at 7,672-7,708 ft. and at 7,936-8,032 ft. Mean & McGehee No. 1-F Lackner is bottomed at 7,735 ft. and casing was cemented on bottom. J. W. Frazier No. 7 Hogg is bottomed at 7,722 ft. with casing cemented at the total depth.

Northeast of the above field, in the Aldin field, E. C. Hankamer and others cemented 5½-in. casing on bottom at 7,284 ft. in No. 1 Rowland, 1,500 ft. southeast of the discovery well, and were preparing to make a production test. While this well checked structurally higher than the discovery well, it failed to log the discovery horizon at 6,800 feet, and casing was cemented to test a series of sands logged by an electrical survey as follows: 6,570-75 ft., 6,624-38 ft., 6,799-6,803 ft., 7,150-70 ft., and 7,195-7,225 ft. The best oil showing was reported at 6,624-38 ft., while the sands below 7,150 ft. showed indications of carrying gas and distillate which correspond with the lower sands developed north of the Fairbanks field, several miles to the west.

Watch West Ranch Field

The West Ranch field, Jackson County, was the center of considerable interest, as one outpost north of production was being tested, and another 1½ miles south of production was coring for the pay. Lonnie Glasscock No. 1 Drummond, 1½ miles north of the field, is bottomed at 5,543 ft., and 7-in. casing cemented at 5,528 ft., following a drill-stem test at 5,527-43 ft. which tested 24-lb. working pressure, 120 ft. of oil and 150 ft. of oil-cut mud. This sand is believed to be the same as that which produces in one well in the Vanderbilt field, a short distance to the northeast. Should the test be a failure, the hole will be plugged back and a test made of the 5,100-ft. pay, where a recent drill-stem test showed good indications. South of the field Nelson, Young and others No. 1 Stepan topped sand with a show of gas at 5,112 ft. and sand with an oil odor at 5,142-43 ft. The hole is being cored ahead and a drill-stem test was expected to be made at the close of the week.

Locations were made for two wildcats in Jackson County. Northwest of Vanderbilt, John Mayo and



W. W. Zingery Maps, Houston

A portion of the Villa Platte field, Evangeline Parish, showing Continental Oil Co. No. 3 Hattie Hass, which opened Wilcox sand production on the east side of the field

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others have rigged up No. 1 J. H. Tucker, in the Raymond Musquez Survey, while east of Vanderbilt, in the P. Scott Survey, Moore & Ahern staked location for No. 1 Victoria Land & Loan Co., a 7,000-ft. test.

In Polk County, Jack Frazier is rigging up for his second Wilcox test, No. 2 Dr. S. J. Bergman, 1,320 ft. northeast of the northeast line of the Jim Bogany 40.6-acre tract and 990 ft. from the southeast line of a 1,662-acre tract in the A. Viesca Survey. The well is about 3½ miles northeast of No. 2 Annie Smith, a dry hole drilled on the same block but located in San Jacinto County.

Louisiana Fields

Along the Louisiana coast the potentiality of the Villa Platte field, Evangeline Parish, was enlarged as prolific production was opened on the extreme east side of the field by Continental Oil Co. No. 3 Hattie Haas. This well was drilled to a total depth of 10,654 ft. and production was obtained by plugging back and perforating the casing at 10,055-85 ft. On a 19-hour gage flowing through a ¼-in. choke, it produced 250 bbl. of 53.2-gravity pipe line oil. Tubing pressure was 2,800 lb. and casing pressure 700 lb. While flowing, the well gaged 1,355,000 cu. ft. of gas per day. The well is located in Section 44, and the hole was deepened after production tests in the Sparta sand at approximately 8,900-9,000 ft. showed salt water.

Interest in the Wilcox trend is now centered on Atlantic Refining Co. No. 1-A Rice Land & Lumber Co., Section 22-3s-11w, Beauregard Parish, which is preparing to core for the Wilcox sand below 8,003 ft. Prospects of finding production in the Wilcox were encouraging at the close of the week in view of gas and distillate odors logged in the Sparta formation at 7,585-7,605 ft. An electrical survey showed 18 ohms resistivity and side-wall cores in the interval showed fine-grained sand and silty sand with a slight showing of oil.

In the same parish, 13 miles southeast of the above test in Section 23-4s-9w, Standard Oil Co. of California No. 1 Long Bell Lumber Co. topped the Wilcox sand at 9,630 ft. which showed salt water and the well is drilling in lime and shale below 9,901 ft.

Failure in Eola?

In the Eola field, Avoyelles Parish, Gulf States No. 1 Haas Investment Co., an east outpost well in Section 8-2s-3e, appears to be a failure, and it is coring below 8,600 ft., and has failed to encounter any sand. At this depth it is below the water level of the field, and any sands found are expected to carry salt water.

The North Elton prospect, Allen Parish, was opened as a gas field with the completion of Bel Oil Co. No. 1 Bel Estate, which is flowing an estimated 1,000,000 cu. ft. of gas through a ⅛-in. choke, showing a slight trace of distillate. This well has been in the process of completion the past week and final completion was made through perforated casing at 7,272-92 ft. Gas from the well will be used in drilling a second test, location for which will be made after the block is rechecked with geophysical instruments.

In Calcasieu Parish, Humble Oil & Refining Co. No. 1 Edgewood Land & Logging Co., Section 32-7s-10w, made an electrical survey, which showed 2 ohms resistivity at 5,455-81 ft., and on a 21-minute drill-stem test working pressure built up to 10 lb., and 3,100 ft. of drilling mud and salt water was recovered. The well is drilling ahead in sand below 5,643 ft.

In Jefferson Davis Parish, Union Sulphur Co. reperforated casing in No. 1 H. B. Tietje at 7,628-38 ft., and the well flowed 3 bbl. of fluid in 2 hours, 5 per cent of which was oil and the balance salt water. Location is in Section 36-7s-4w.

Texas Co. No 1 L. L. & E., Golden Meadows, an outpost well in the Golden Meadows field, La Fourche Parish, recovered 20 ft. of drilling mud on a drill-stem test through perforated casing at 7,300-20 ft., and the company was attempting to test again at 7,085-7,110 ft. This well is the deepest hole drilled in the area, having reached a total depth of 12,526 ft. Drilling activity in the field proper is beginning to show an increase as locations for two more wells were made. M. H. Marr and others have derrick up for No. 1 Church property in Section 2-19s-22e, while St. Mary Oil Co. is moving in material for No. 1 Chonest in Section 12-19s-22e. Martex Petroleum Co. No. 1 Falgout Holding Corp., the completion of which was responsible for the present drilling program, was recompleted the past week for an initial production of 360 bbl. per day, flowing through a 10/64-in. choke. The well is flowing from a new sand through perforated casing at 7,925-55 ft.

(Continued on Page 135)

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Oklahoma Operations

By
DAL DALRYMPLE

Important Wildcats Continue Short of Completion Depths

The three most closely watched wildcats in Oklahoma were still in the noncompletion stage at the close of this report, Carter Oil Co. No. 1 Staggers, C W½ SE SW Section 4-25-3w, in Grant County, was drilling in hard lime at 5,370 ft., with the top of the Wilcox sand at 5,270 ft. The test had stains of oil in some of the cores but no considerable saturation.

Nels-Burton No. 1 Boggs, NE NE SE Section 16-9n-2w, Cleveland County, which was a dry hole in the Wilcox sand at a total depth of 7,646 ft., was plugged back to 7,545 ft. and casing set at 7,300 ft. for a test of the dolomite.

Pure Oil Co. No. 1 Noble, C NE SE Section 35-3s-1e, in Carter County, was drilled to 8,500 ft. and plugged back to 6,300 ft. Pipe was shot off at 4,865 ft. Casing was pulled, and above the mud and water that rose in the hole was 900 ft. of free oil from the Hunton lime. Seven-inch casing was rerun to 4,632 ft. and the Hunton will be tested. If this well makes a producer in that formation it will be the first Hunton lime well south of the Arbuckle Mountains.

Pottawatomie County

Yorkan Production Co. No. 1 O'Connor, NE NE NE Section 6-10-4, Shawnee pool, Pottawatomie County, found Earlsboro sand at 4,410-61 ft., and flowed 140 bbl. of oil in 24 hours on completion test.

Denver Producing & Refining Co. No. 1 Hurford, C N½ N½ SE Section 2-6-4, St. Louis district, pumped 10 bbl. of oil daily and was completed at 4,315 ft., total depth.

Same company's No. 2 Stearns, SE SE NW Section 6-6-5, plugged back from total depth of 4,210 ft. to 4,101 ft., produced 5 bbl. of oil and 100 bbl. of water and mud in 1 hour, and was put on pump. Same company's No. 2 Stearns, NW NE NW Section 6-6-5, was acidized at 4,183 ft., fluid rose 2,000 ft. in the hole and it was being put on pump.

Associated Petroleum Co. No. 5 Schrader, SW SW NE Section 6-6-5, pumped 20 bbl. of oil and 1,500 bbl. of water daily at 4,222 ft., total depth.

H. L. Berkey No. 3 Bruno, SW NW NW Section 6-6-5, flowed 1,320 bbl. of oil and 2,400 bbl. of water in 24 hours at total depth of 4,182 ft.

Recent completions in Pottawatomie County included: Ray Stephens No. 1 Copeland, SW NW NW Section 5-6-5, topped dolomite at 4,168 ft., total depth 4,243 ft., was acidized and produced 21 bbl. of oil daily.

R. Patterson No. 1 Edwards, NW SE SE Section 28-6-5, Gray area, found Earlsboro sand at 2,732 ft., total depth 2,770 ft., was shot at 2,740-65 ft., and flowed 240 bbl. of oil in 24 hours.

New activity in Pottawatomie County: J. F. Smith No. 3 Wood, SW SE SW Section 31-7-5, location; same operator's No. 4 Wood, NE NE SW Section 31-7-5, location; J. E. Trigg and others No. 1-B Rhodd, C N½ SE SE Section 32-7-5, drilling below 640 ft.; Ray Stephens, Inc., No. 1 Stalnaker, SE SE NW Section 24-8-4, cellar; Sinclair Prairie Oil Co. No. 4-B Neely, SW SE SW Section 25-7-4, building rig.

Seminole County

W. A. Villines No. 2 Reed, SE NE NE Section 34-7-5, Little River area, Seminole County, was cleaning out and estimated good for 100 bbl. of oil on the pump. It was bottomed at 3,016 ft., plugged back and ripped casing at 2,848-54 ft.

J. C. Shaffer No. 1 Owens, SE NE Section 18-8-6, Mission area, topped Hunton lime at 4,169 ft., total depth 4,181 ft., was acidized with 3,000 gal., and flowed 50 bbl. of oil an hour for 4 hours. Gravity of the oil was 43.6°. Seven-inch casing was cemented at 4,028 ft. Before acidizing it swabbed about 90 bbl. of oil daily.

Among recent completions was Sunray Oil Co. No. 1 Cosar, SW SW NE Section 12-6-5. It was completed for salt water disposal well at 4,345 ft., total depth.

Atlantic Refining Co. No. 1 McCoy, SE NE NW Section 21-7-6, found Wilcox sand at 4,371 ft., total depth 4,378 ft., flowed 469 bbl. of oil in 14 hours, and made 24-hour potential of 900 bbl.

Malernee and others No. 7 Shelton, NE NW SW Section 33-7-6, had Senora sand at 2,878 ft., was bottomed at 2,946 ft., was shot and produced 100 bbl. of oil daily.

McQueen and others No. 1 McCann, SW SE NE Section 33-7-6, was completed for 70 bbl. of oil in 24 hours after shooting Earlsboro sand topped at 2,838 ft., total depth 2,898 ft.

Wood Oil Co. and others No. 2 Tobin, SW NW NW Section 22-7-5, was waiting on cement at 98 ft. Dave Malernee No. 4-A Swan, NW NE SW Section 33-7-6, Dora area, was drilling below 776 ft. J. J. Deaner and others No. 1 Wood, NW NE SE Section 33-7-6, was a location. Culver & Shepard No. 1 Snider, NW NW NW Section 10-5-5, had spudded.

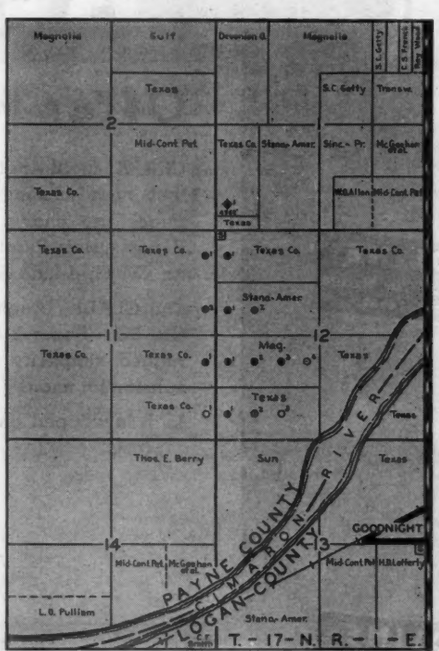
Pontotoc County

Senora Oil & Gas Co. No. 1 Porter, NE NE NE Section 35-5-4, Bebee area, Pontotoc County, topped Viola lime at 2,380 ft., total depth 2,500 ft., was estimated good for 40 bbl. of oil naturally, and may acidize.

Magnolia Petroleum Co. No. 12 Norris, SW SW NE Section 25-2n-6, Fitts district, found Cromwell sand at 2,548 ft., total depth 2,642 ft., was shot and completed for 200 bbl. of oil in 24 hours.

Simpson-Roodhouse No. 2 Statler, SE SW SW Section 34-2n-7, had sand at 1,831-48 ft., total depth 1,849 ft., was shot and completed for 42 bbl. of oil and 8,000,000 cu. ft. of gas daily.

Chism & Gordon No. 1 Chism, NE SW SE Section 3-4-7, was dry and abandoned at 1,185 ft., total depth.



Midcontinent Map Co., Tulsa

Discovery of Hunton lime production revived interest in the Coyle pool, Payne County, but that zone is not being developed, wells being completed in Wilcox sand

Cooper Drilling Co. No. 1-A McKinley, NW NE NW Section 23-2n-7, found sand at 1,343-70 ft., total depth, and pumped 32 bbl. of oil in 24 hours.

E. H. Moore, Inc., No. 1 Mitchell, NW SW NW Section 31-2n-7, an old well, was deepened from 4,515 ft. to 4,557 ft., plugged back to 4,553 ft., and pumped 60 bbl. of oil in 24 hours after running liner.

Estimated Daily Production

Estimated daily production for Oklahoma for the week ending June 17, and for the preceding week, was as follows:

	Barrels	
	June 17	June 10
Allen	6,025	6,150
Billings	6,550	5,625
Burbank	7,625	7,600
South Burbank	9,300	9,350
Balance Osage	17,250	17,200
Blackwell district	3,650	3,750
Bristow-Slick	6,825	6,875
Chandler	1,525	1,550
Crescent	3,225	3,150
Cromwell	3,000	3,025
Cushing-Shamrock	9,800	9,850
Duncan	3,850	3,825
Edmond	4,875	4,750
Fish	4,550	4,675
Fitts	25,500	26,775
Jesse	2,375	2,925
Graham-Fox	3,825	3,925
Gray	875	850
Healdton	9,100	9,225
Hewitt	3,825	3,800
Keokuk	3,650	3,600
Konawa	1,200	1,225
Lucien	9,225	9,150
Moore	2,775	2,850
Oklahoma City	110,775	93,150
Olympic	2,850	2,875
Ramsey	4,350	4,225
Sasakwa	1,325	1,350
Sholem-Alechem	2,350	2,225
Seminole district.		
Bowlegs	8,200	8,250
Carr City	2,875	2,925
Dora	3,575	3,650
Earlsboro	4,675	4,725
South Earlsboro	550	550
East Earlsboro	4,150	4,125
Little River	7,225	7,250
East Little River	725	750
Maud	850	900
Mission	1,525	1,550
Seminole	8,125	8,050
East Seminole	1,350	1,375
Searight	2,525	2,575
Total Seminole	46,350	46,675
St. Louis-Pearson	36,250	36,500
Tatums	1,700	1,775
Tonkawa-Garber-Thomas	4,075	4,050
Wewoka	2,025	2,125
Yale-Jennings	3,525	3,600
Other pools	87,500	89,000
Total Oklahoma	453,475	439,250

Wildcat Reports

Delaney and others No. 1 Bramer, SE SW SW Section 25-11-4, wildcat west of the North Shawnee pool, Pottawatomie County, was reported dry and abandoned at 5,003 ft., total depth, in shale.

Atlantic Refining Co. and others No. 1 Jimmey, SE NW NE Section 21-7-6, Seminole County wildcat, was completed at total depth of 4,417 ft., in Wilcox sand topped at 4,410 ft. It swabbed 516 bbl. of oil in 16 hours, and flowed 148 bbl. in 7¾ hours. Gravity of the oil was 38.5°. It opened a new area in the Little River district.

W. A. Villines and others No. 1 Marshall, NW NE NE Section 28-15-4, Lincoln County wildcat, was dry and abandoned at 5,080 ft., total depth.

Kerlyn Oil Co. No. 1-A Hein, NW NW NW Section 36-22-4w, wildcat in Garfield County, failed to find production and was abandoned at 5,046 ft., total depth.

C. M. Beckett No. 1 Standerfer, NE NE NE Section 25-7-18w, 1 mile southwest of the Gled Oil Co.-Russell Tarr discovery well in the Hobart area, Kiowa County, was lowering surface casing after spudding to 94

(Continued on Page 104)

REPRESSURING
8 CLARK 300 and 500 H. P. "Angles", Continental Oil Co., Tepetate, La.

BUTANE PLANT
5 CLARK 300 H. P. "Angles" used for producing Butane, Shamrock Oil & Gas Co.

NATURAL GASOLINE
4 CLARK 4-Cyl., 400 H. P. "Angles" in Natural Gasoline Plant, Panhandle region, Texas.

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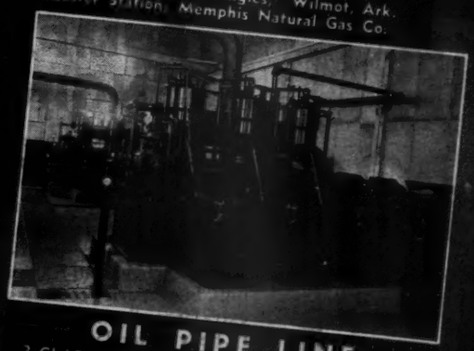
GAS BOOSTING

5 CLARK 600 H. P. "Angles," Wilmot, Ark. Booster Station, Memphis Natural Gas Co.



OIL PIPE LINE

2 CLARK 300 H. P. "Angles"—engines only—in oil pipe line service near Jal, New Mexico

POLYMERIZATION

4 CLARK 300 H. P. "Angles," Humble Thermal Polymerization Plant, Baytown, Texas

ft. Shell Oil Co. No. 1 Ratliff, SE SE NE Section 19-7-17w, was location for west offset to the discovery well, in SW SW NW Section 20-7-17w.

Bollen-Dillard & Roberts No. 1 Holcomb, NE NE SW Section 25-7-19w, was location for another Kiowa County wildcat.

Payne County

The southwest rim of the Ramsey pool, Payne County, yielded a sizeable producer at Mid-Continent Petroleum Corp. and others No. 2 Wetzel, SE NE SE Section 13-18-1e, a completion of the past week. It topped Wilcox sand at 4,788 ft., was bottomed at 4,811 ft. and washed in, making 24-hour potential of 7,121 bbl. of oil. It flowed 320 bbl. of oil, with 4,450,000 cu. ft. of gas in the first hour; 273 bbl. of oil and 4,270,000 cu. ft. of gas the second hour; 259 bbl. of oil and 3,900,000 cu. ft. of gas in the third hour, and was shut in.

Texas Co. No. 1 Graham, C E½ NE SE Section 11-17-1e, recent completion in the Coyle field, had initial daily yield of 110 bbl. of oil from Wilcox sand at total depth of 4,938 ft.

Magnolia Petroleum Co. No. 3 Cain, C W½ NE SW Section 12-17-1e, Coyle pool, flowed 530 bbl. of oil through tubing in 24 hours. Production was from Wilcox sand at total depth of 4,862 ft.

Oklahoma County

In the Oklahoma City field, Oklahoma County, Indian Territory Illuminating Oil Co. No. 4 Canfield, NW SE SW Section 19-11-2w, topped Pawhuska zone at 2,740 ft., second Pawhuska 3,074 ft., was bottomed at 3,085 ft., swabbed 571 bbl. of oil in 12 hours and was rigging up standard tools.

Same company's No. 4 Canfield-Button, SW NE SW Section 19-11-2w, had dug cellar and pits; the company's No. 7 Watters, SE NW NE Section 25-11-3w, was a location; company's No. 4 Wilkie-Anderson, NW SE NE Section 25-11-3w, was drilling below 3,273 ft.

Lincoln County

Mudge Oil Co. No. 7 Robertson, NW NW SW Section 10-14-6, Sac and Fox pool, Lincoln County, flowed 135 bbl. of oil in 24 hours after shooting Prue sand with 115 qt. It was bottomed at 3,132 ft. in sand.

Wilcox Oil & Gas Co. No. 29 Sac and Fox, SW SE SW Section 15-14-6, was bottomed at 3,042 ft., was shot in Prue sand with 95 qt., and flowed 53 bbl. of oil in 24 hours.

Pawnee County

Johnson Oil Refining Co. No. 3 Finley, SW NE NW Section 27-20-9, Pawnee County, was completed for 42 bbl. of oil daily at 2,071 ft., total depth.

Same company's No. 4 Finley, SW NW NW Section 27-20-9, was shot with 200 qt. at 2,111 ft., total depth, and flowed 168 bbl. of oil daily.

Okfuskee County

Wells & Fleming No. 2-A Scott, NW SE NE Section 25-10-11, Weleetka district, Okfuskee County, was completed for 24 bbl. of oil daily after shooting sand at 2,100-30 ft., total depth.

C. A. Sivalls and others No. 1 Montray, SW NE NE Section 21-11-11, Deaner area, topped lime at 2,711 ft., was acidized and shot, flowed 31 bbl. of oil by heads in 8 hours, and was completed for 5 bbl. of oil daily at 2,745 ft., total depth.

South of Okemah, Burke-Greis Oil Co. No. 1 Palmer, NE SE SE Section 19-10-10, produced 15,000,000 cu. ft. of gas in 24 hours from Hunton lime at 2,692-98 ft., and was shut in. Same company's No. 1 Scott, C NE SW Section 20-10-10, gaged 5,000,000 cu. ft. of gas from Booch sand at 2,734-45 ft., and continued testing.

Carter Oil Co. No. 3 King, SE SE SW Section 2-11-8, Dill pool, was a location.

Okmulgee-Creek Counties

Ray Vincent No. 1 Burt, NW SE SE Section 6-13-11, Okmulgee County, had Wilcox sand at 3,275 ft., total depth 3,310 ft., plugged back to 3,236 ft., and produced 2,000,000 cu. ft. of gas, completed.

Riverland Oil Co. No. 2 Simmer, NE SW NW Section 22-13-13, Okmulgee County, was dry and abandoned at 2,865 ft., total depth.

R. Corey and others No. 4 Boucher, SW NE SE Section 24-16-11, was completed for an estimated 60,000 cu. ft. of gas at 232 ft., total depth.

Dodge No. 17 Payne, SW SE SE Section 17-15-14, Okmulgee County, was shot with 60 qt. at plugged back depth of 825 ft. and pumped 4 bbl. of oil in 24 hours. It was bottomed at 836 ft.

In Creek County, L. B. Jackson No. 1 Helton, NE cor. Section 12-17-9, Kellyville district, was acidized and produced 30 bbl. of oil in 24 hours from lime at 1,697-1,748 ft.

S. K. Vierson and others No. 2 Mills, C SE NE Section 10-14-10, pumped 18 bbl. of oil daily at total depth of 2,690 ft. Tibbens No. 1 Jones, SE SE NW Section 18-14-9, had Layton sand at 1,248-62 ft., was shot and pumped 5 bbl. of oil in 24 hours.

New work in Okmulgee County: Hazlett and others No. 1-A Tucker, NE NW NE Section 11-13-14, spudded; W. A. Hoffman No. 1-A Warner, NE SW SW Section 6-14-15, spudded; Dodge Brothers No. 18 Payne, SE SE SE Section 17-15-14, spudded; F. D. Misener No. 3-A Jefferson, CEL SW SW Section 22-15-14, drilling 831 ft.

Muskogee County

J. R. Parks No. 7 Hildebrand, SW NW SE Section 17-14-19, Muskogee County, was completed for 500,000 cu. ft. of gas at 578 ft., total depth.

Robinson Oil Co. No. 5 Brown, SW SE NE Section 18-13-16, was dry and abandoned at 2,126 ft., total depth.

R. L. Hill No. 1 Atkins, C E½ SE SE Section 17-15-18, was dry and abandoned at 1,739 ft., total depth, and a similar fate marked the end of Carolyn Oil Co. No. 1-A Smith, SE SW NW Section 19-15-18, at total depth of 1,465 ft.

Robinson Oil Co. No. 7 Robinson, SW SE SW Section 18-13-16, was drilling below 1,130 ft.

Osage County

Barnsdall Oil Co. No. 10 Osage, NW NE SW Section 23-24-10, West Barnsdall pool, Osage County, was shot at 1,725-61 ft., total depth, and completed for 30 bbl. of oil daily.

(Continued on Page 113)

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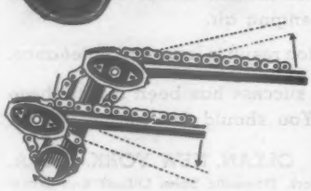

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California Field Report

By
L. P. STOCKMAN

Not All Operators in Line With New Plan to Conserve

LOS ANGELES, Calif., June 19.—After dropping down below 600,000 bbl. per day for a short time early in June, crude oil production in California has been hovering around 620,000 bbl. daily during the past week and shows every indication of maintaining that average during the remainder of the month unless Kettleman North Dome, Ventura Avenue, Wilmington, Montebello and several other fields conform more closely to the new uniform method of allotment, which became effective June 1. The June allotment is 588,000 bbl. per day but it is questionable that actual production will be reduced to this objective. The completion of new wells and recompletion of others that have been deepened or reconditioned helps to keep production up. Taken as a whole, the new uniform method of allotment has proved successful and greatly simplifies administration of the curtailment program and enhances application of the method now in effect.

Offshore shipments have been holding up in good shape and with the peak consumption just ahead, stocks may be reduced during the next 3 or 4 months, provided that no unforseen difficulties arise.

The Atkinson and Wagy control bills, which have become political footballs in the state legislature, are being kicked around again and while the assembly has passed the Atkinson measure it appears questionable that the state senate will be able to muster enough votes to make it effective. The senate recently passed the Atkinson control measure twice. Governor Olson is rather insistent that the Atkinson bill be passed but it is problematical whether there is sufficient time remaining to take action. There is a possibility of a special session and if a special meeting is called oil control may again be taken up. The Atkinson bill takes management of the oil industry out of the hands of the industry and places it in the hands of a committee whereas the Wagy bill validates the Central Committee of California Oil Producers and names it as an official regulating body.

Montebello Deep Drilling

Operators interested in the Montebello field, where deep zone exploitation has been under way for more than a year are closely watching the outcome of a production test to be made of Hathaway Oil Co. No. 1 Dore, which has been bottomed at 7,662 ft. in the seventh zone. It will greatly extend the productive limits of the seventh zone if commercial production is developed, and lead to the starting of numerous new wells. No. 1 Dore is the only well drilled south of Beverly Boulevard. A good completion will mean the immediate starting of No. 1 Hathaway by Stanley Oil Co., No. 1 Lyon by Graham & Loftus Oil Corp., No. 1 Jane Schaak by Norden Oil Corp. and No. 1 Beach and No. 1 Matson by McVicar & Rood. Locations for these wells have been tentatively mapped and material will be placed on ground immediately upon completion of No. 1 Dore if it proves to be a good well. Early in the week No. 1 Dore tested wet and has been recemented. It has an 8⅝-in. water string landed at 7,035 ft. and 675 ft. of 4¾-in. liner including 262 ft. of perforated and cemented through perforations at 7,400 ft.

Most of the drilling now under way is located east of Sixth Street and Lincoln, with a definite tendency to move southeasterly. Brookline Oil Co. did not make enough from the production of its No. 1 Drake Community in the upper zones to defray the cost of deepening it to the seventh or eighth zones and the company made a deal with La Merced Drilling Co. whereby the latter was to deepen the well to production in the lower zones. As a result it has been deepened to 7,630 ft. and recompleted, flowing 1,550 bbl. of 35.8-gravity oil and about 1,000,000 cu. ft. of gas per day through a 1-in. bean under a tubing pressure of 375 lb. and a casing pressure of 750 lb. This well, located northwest of Beverly Boulevard and Maple Avenue, was finished with an 8⅝-in. water string landed at 6,360 ft. and 1,313 ft. of 5½-in. liner including 151 ft. of 120-mesh perforations landed at 7,630 ft. and cemented through perforations at 7,480 ft. and 7,614 ft. of 2½-in. tubing. Top of the upper La Merced sand was logged at 7,372 ft. and top of the lower La Merced zone was cored at 7,480 ft. No. 1 Drake Community, as evidenced by the relatively small volume of gas, appears to be structurally below the gas cap in the La Merced zone.

Wilmington

The Wilmington field of Los Angeles Basin, largest producing field in the state, contributed five new wells and one recompletion during the past week. None of the new wells put on production was permitted to establish a potential rating, hence the aggregate initial daily production was only 2,818 bbl. Long Beach Oil Development Co. completed three wells that were bottomed beneath the tideland accumulation by directional drilling. These were No. 5-X completed flowing 225 bbl. per day through a 14/64-in. bean from the Ranger zone, 230 bbl. daily through a 14/64-in. bean from the upper Terminal zone and 232 bbl. per day through a 16/64-in. bean from the lower Terminal zone; No. 1-Y completed flowing 130 bbl. daily from the Ranger zone, 220 bbl. per day from the upper Terminal zone and 285 bbl. daily from the lower Terminal zone and No. 2-Y finished flowing 218 bbl. through a 16/64-in. bean from the lower Terminal zone. In the latter case the Ranger zone and upper Terminal zones were not tested but will be found productive whenever given the chance to produce.

Late in the week, Richfield Oil Corp. completed No. 29 Pacific Dock flowing 404 bbl. of 18.6-gravity oil per day through a 24/64-in. bean from the Ranger zone with bottom of the hole at 2,891 ft. This well was finished with an 8⅝-in. water string landed and cemented at 2,791 ft. Macson Oil Co. completed No. 55-3-G in the town lot section in the northwestern end of the field flowing 651 bbl. of 15.4-gravity oil, cutting 4 per cent, from the Ranger zone with bottom of the hole at 3,670 ft. This well was finished with a 9⅝-in. water string landed at 2,846 ft. and 876 ft. of 5½-in. Nelson gravel-packed liner landed at 3,670 ft. Perforations in the liner are at 2,872-3,247 ft., 3,352-82 ft., 3,437-3,567 ft. and at 3,622-70 ft. and the 3,630 ft. of 2½-in. tubing has packer at 2,730 ft. This well sanded up shortly after completion and necessitated a clean-out job before going on steady production. It is one

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	June 10		June 3			
Intercoastal-domestic—	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Crude oil	.....	.....	.....	.....	247,520	203,139
Fuel oil	.....	.....	.....	.....	884,491	.....
Diesel and gas oil	.....	.....	.....	.....	163,501	.....
Gasoline	.....	.....	.....	.....	1,348,513	1,336,801
Kerosene	.....	.....	.....	.....	122,200	199,453
Foreign exports—						
Crude oil	171,455	24,494	724,829	103,547	6,843,081	11,184,356
Fuel oil	185,053	26,436	369,783	52,826	3,895,079	4,022,112
Diesel and gas oil	49,985	7,141	138,484	19,783	2,786,985	2,757,017
Gasoline	220,789	31,541	122,510	17,501	3,486,996	2,946,551
Kerosene	31,704	4,529	.....	.....	653,290	568,502
Lubricants	.....	.....	.....	.....	42,034	.....
Coastwise-domestic—						
Crude oil	270,571	38,653	104,887	14,984	5,569,272	4,947,576
Fuel oil	22,142	3,163	246,842	35,263	4,031,237	4,841,951
Diesel and gas oil	15,742	2,249	62,332	8,905	1,127,344	776,967
Gasoline	330,593	47,228	276,026	39,432	6,391,201	6,651,723
Kerosene	4,371	624	4,371	624	177,653	130,434

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic—						
Fuel oil	.....	.....	.....	.....	61,281	.....
Diesel and gas oil	.....	.....	.....	.....	69,550	178,662
Gasoline	.....	.....	.....	.....	.....	9,499
Asphalt	.....	.....	.....	.....	280,447	346,862
Lubricants	.....	.....	.....	.....	11,184	13,665
Foreign exports—						
Crude oil	140,704	20,101	35,161	5,023	2,539,831	2,504,589
Fuel oil	80,311	11,473	72,712	10,387	1,396,284	1,060,946
Diesel and gas oil	105,263	15,038	.....	.....	1,000,793	918,710
Gasoline	.....	.....	.....	.....	1,296,429	2,189,869
Kerosene	.....	.....	.....	.....	305,252	439,164
Asphalt	.....	.....	.....	.....	6,919	56,258
Lubricants	.....	.....	83,028	11,861	285,653	177,971
Other finished oil	.....	.....	.....	.....	352	.....
Coastwise-domestic—						
Fuel oil	84,161	12,023	120,314	17,191	2,530,053	2,988,626
Diesel and gas oil	40,488	5,784	23,906	3,415	447,241	698,620
Gasoline	314,604	44,943	152,650	21,807	3,281,212	2,994,735
Kerosene	23,255	3,322	20,701	2,957	314,963	281,609

TOTAL TANKER SHIPMENTS FROM CALIFORNIA TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic—						
Crude oil	.....	.....	.....	.....	247,520	203,139
Fuel oil	.....	.....	.....	.....	945,772	.....
Diesel and gas oil	.....	.....	.....	.....	233,051	178,662
Gasoline	.....	.....	.....	.....	1,348,513	1,346,300
Kerosene	.....	.....	.....	.....	122,200	199,453
Asphalt	.....	.....	.....	.....	280,447	346,862
Lubricants	.....	.....	.....	.....	11,184	13,665
Foreign exports—						
Crude oil	312,159	44,594	759,990	108,570	9,382,912	13,688,945
Fuel oil	265,364	37,909	442,495	63,214	5,291,363	5,083,058
Diesel and gas oil	155,248	22,178	138,484	19,783	3,787,778	3,675,727
Gasoline	220,789	31,541	122,510	17,501	4,783,425	5,136,420
Kerosene	31,704	4,529	.....	.....	958,542	1,007,666
Asphalt	.....	.....	.....	.....	6,919	56,258
Lubricants	.....	.....	83,028	11,861	327,687	177,971
Other finished oil	.....	.....	.....	.....	352	.....
Coastwise-domestic—						
Crude oil	270,571	38,653	104,887	14,984	5,569,272	4,947,576
Fuel oil	106,303	15,186	367,156	52,451	6,561,290	7,830,577
Diesel and gas oil	56,230	8,033	86,238	12,320	1,574,585	1,475,587
Gasoline	645,197	92,171	428,676	61,239	9,672,413	9,646,458
Kerosene	27,626	3,947	25,072	3,582	492,616	412,043

of the best completions in the northwest area in a long time and may lead to additional drilling on adjacent leases. Sunray Oil Co. which acquired holdings in the Wilmington field last year from Royalty Service Corp. completed No. 1-A Santa Fe flowing 203 bbl. of 29.9-gravity oil per day from the Ford zone. This, a former upper zone producer, deepened to the Ford zone and finished with a 6⅝-in. liner carrying 82 ft. of perforated, was cemented through perforations at 5,628 ft. with bottom of the hole at 5,717 ft. Signal Oil Co. was putting the finishing touches on two new tideland wells in the Wilmington field. The depths of tideland wells do not represent the actual depth from the surface, as all tideland wells in this field are deviated from the vertical. Thus No. 5-X, No. 1-Y and No. 2-Y of Long Beach Oil Development Co. which were bottomed at 3,855 ft., 3,875 ft. and 3,833 ft. respectively would not show comparable depths if they were drilled straight down. On all tideland wells the depth assigned is actual footage drilled.

Coalinga District

The discovery of prolific Eocene production in the Gatchell area, southeast of the East Coalinga field of Fresno County, and completion of No. 7-17 S.P.L., north of the Gatchell area, by Amerada Petroleum Corp., a few months ago has greatly stimulated interest in this general area and has resulted in an intensive search for additional accumulations of a similar nature. These northeast and southeast fields are located on plunging noses with the oil trapped up dip by a lensing out of the reservoir sand body. This type of accumulation which is called a stratigraphic trap or shoreline accumulation is the hardest to find because neither surface geology or seismograph surveys can definitely locate their position although general approximations can be secured. Closure can be effected by a number of combinations of plunging noses, faults and shorelines or by stratigraphic closure alone on a homocline.

Southwest of Gatchell, Superior Oil Co. is drilling a wildcat on Pleasant Valley Farming Co. property in Section 22-20-15 and has reached the interesting stage notwithstanding information on the well is not given out. Superior is looking for an easterly dipping homocline and hopes for a salient in the Gatchell Eocene shoreline to effect closure. There were no completions in either Northeast Coalinga or Southeast Coalinga fields in the past week, but there are several wells nearing the final stage. No. 1 Exeter of the Texas Co. in the northeastern end of the Southeast Coalinga has been bottomed at 7,816 ft. in oil sand which was cored at 7,799 ft. Top of the Kreyenhagen was logged at 7,710 ft. and top of the Grit zone was cored at 7,712 ft.

Kern County

Tide Water Associated Oil Co. removed any doubt about the existence of a new prolific oil field in the Strand district of Kern County by recompleting No. 35-E Kern County Land in Section 7-30-26 flowing 1,560 bbl. of 34.2-gravity oil and 978,000 cu. ft. of gas per day through a 48/64-in. bean. This discovery well in the Strand district showed a water cut of 11 per cent when completed, but this has been remedied, and there is only practically a trace of water and sand. No. 35-E Kern County Land is bottomed at 8,364 ft., plugged back to 8,320 ft. and has an 8⅝-in. water string cemented at 8,300 ft. Tide Water Associated Oil Co. does not have to drill another well in the Strand field for 60 days, but expects to get under way with No. 36-E Kern County Land in the same section at once.

No. 1 Salisbury of California Exploration Co. in the Buttonwillow district of Kern County in Section 7-29-24 has taken on a very dubious aspect due to a troublesome water condition that has prevented a successful production test. This well is bottomed in the Stevens interval for a test at 12,989 ft. but has been plugged back to 12,814 ft. A few weeks ago the company landed a 4½-in. liner at 12,812 ft. but failed to effect a satisfactory water shut off. As a consequence the company has now landed 145 ft. of 3½-in. drillable liner at 12,720 ft. and will proceed with a production test at once. The outlook for commercial production does not look any too bright.

Ohio Oil Co. added another well in the Canal field by completing No. 12-E Kern County Land in Section 14-30-25 flowing 2,832 bbl. of clean 35.4-gravity oil and 2,680,000 cu. ft. of gas per day from the Stevens interval at 8,330 ft. This well, which was brought in flowing through a 1-in. bean behind a tubing pressure of 300 lb. and a casing pressure of 850 lb., was finished with a 7-in. water string landed and cemented at 8,060 ft. and 312 ft. of 4½-in. liner including 295 ft. of perforated landed at 8,328 ft. and 8,293 ft. of 2½-in. tubing. Top of the Stevens zone was logged at 8,070 ft. which gives the well 260 ft. of producing zone. In the Elk Hills field of Kern County, Richfield Oil Corp. completed well No. 1-D.B. on the Crampton lease in Section 1-31-24 pumping 140 bbl. of 20.7-gravity- oil cutting 11 per cent daily from a depth of 3,023 ft. This new well was finished with an 8⅝-in. water string landed at 2,961 ft. and 95 ft. of 6⅝-in. liner including 63 ft. of perforated landed at 3,022 ft. and 2,929 ft. of 2½-in. tubing.

Gas Fields

Standard Oil Co. completed another productive gas well in the Delano gas field of Kern County and staked locations for No. 2-3 Tulare Farms in Section 35-24-23 and No. 2-4 Tulare Farms in Section 34-24-23 preparatory to early work. This additional drilling reflects the recent construction of a new gas line out of the Delano gas field by Southern California Gas Co. and Pacific Gas & Electric Co., as a joint undertaking. The new well completed in the Delano gas field was No. 1 Tulare Farms of Standard Oil Co. in Section 35-24-23 which was brought in flowing through a 54/64-in. choke behind a tubing pressure of 1,000 lb. and a casing pressure of 950 lb. Initial production was 19,000,000 cu. ft. of dry gas. The hole was finished with a 7-in. water string landed and cemented at 2,420 ft. and 65 ft. of 5⅝-in. liner including 64 ft. of perforated landed on bottom.

In Solano County in the northern part of the state, Standard Oil Co. has reached a depth of 4,450 ft. in No. 1 California Packing Co. in Section 15-5-2. This wildcat which is being drilled primarily in search of dry gas is north of the Rio Vista gas field and east and slightly north of the Potrero Hills gas field discovered by Richfield Oil Corp. last year. In the Marysville gas field of Sutter County, Buttes Oilfields, Inc., has reached a depth of 3,190 ft. but has not yet hit the pay. This well is considered to be within the productive confines of the field and should show production upon completion. With the exception of a few wells, all dry gas fields in the state have suspended production for the summer.

Coastal Area

Union Oil Co. completed another good flowing well in the Santa Maria Valley field of Santa Barbara County when No. 5 Vicente was brought in flowing 1,950 bbl. of 17.4-gravity oil cutting 11 per cent. This new well, one of very few drilled by Union Oil Co. in the Santa Maria Valley field during the past two years, was finished at 5,279 ft. with an 8⅝-in. water string landed at 4,827 ft. and 492 ft. of 6⅝-in. liner to 5,274 ft. including 180 ft. of perforated with 39 ft. of blank pipe on the bottom. Tide Water Associated Oil Co. has concluded drilling operations on No. 40 Ventura Land & Water at 10,769 ft. and has run in liner preparatory to making an early production test. This well has several hundred feet of rich oil sand and should result in substantial production. No. 2 Dabney-Lloyd of the Lloyd Corp. which blew in flowing 2,250 bbl. per day from 9,975 ft. is still holding up in good shape and the crew has not resumed fishing for the lost drill pipe. British American Petroleum Co. is making preparations to begin drilling another well on the Hartman lease out on the north flank of the Ventura Avenue anticline where the company finished a large flowing well a few weeks ago. This lease is owned by Bolsa Chica Oil Co. which made a deal with British American for development on a participating interest which is mutually beneficial.

Los Angeles Basin

No. 1 Leitch of Wilshire Oil Co. in the Rosecrans field of Los Angeles Basin was completed at 7,870 ft. but was good for only 78 bbl. of 28.6-gravity oil cutting 4 per cent. It will be a pumping well. This well, which is on the west side of the field, was finished with an 8⅝-in. water string landed at 7,645 ft. and 1,870 ft. of 6⅝-in. liner including 235 ft. of 100 mesh and 7,850 ft. of 2½-in. tubing. George G. Averill has not yet completed remedial work on No. 1 Howard Associates, an outpost in the southern part of the Rosecrans field. This well came in flowing from 7,644 ft. but showed such a high water cut that the flow was later killed and work started to recement the 6⅝-in. water string at 7,552 ft.

In the Huntington Beach field, Southwest Explora-

STANDARD OIL CO. OF CALIFORNIA AND UNION OIL CO.
Crude oil prices at the well effective June 22, 1936

Gravity—	Signal Hill (Long Beach)	Seal Beach	Alamitos Heights	Huntington Beach	Inglewood	Playa del Rey	Olinda-Brea Canyon	Athens-Rosecrans	Dominguez	Ellwood Terrace	Torrance	Richfield	Whittier-E. Coyote (La Habra)	Montebello	W. Coyote Hills	Santa Fe Springs	Mountain View	Elk Hills Buena Vista Hills Midway-Sunset Lakeview Area	Lost Hills	Coalinga	Santa Paula*	Ketteleman Hills	Wheeler Ridge	Orcutt*
14-14.9	$.80	$.79	$.74	$.78	$.79	$.80	$.76	...	...	...	$.80	$.76	$.76	$.77	$.78	...	...	$.70	$.70	$.70	...	...	$.70	...
15-15.9	.80	.79	.74	.78	.79	.80	.76	...	...	...	.80	.76	.76	.77	.78	...	...	.70	.70	.70	...	...	.70	...
16-16.9	.80	.79	.74	.78	.79	.80	.76	...	...	...	.80	.76	.76	.77	.78	...	...	.70	.70	.70	...	...	.70	$.70
17-17.9	.80	.79	.74	.78	.81	.80	.76	...	...	...	.80	.76	.76	.77	.78	...	...	.70	.70	.70	...	...	.71	.70
18-18.9	.80	.79	.74	.78	.84	.80	.76	...	...	...	.82	.76	.76	.77	.78	...	...	.70	.70	.70	...	...	.73	.72
19-19.9	.82	.79	.74	.82	.87	.84	.81	...	...	...	.85	.76	.76	.77	.78	...	$.70	.74	.74	.71	$.70	...	.75	.74
20-20.9	.85	.79	.74	.85	.90	.88	.84	...	...	...	.88	.78	.82	.77	.80	...	.70	.78	.78	.72	.70	...	.77	.77
21-21.9	.88	.79	.74	.89	.93	.93	.88	...	...	...	.91	.80	.85	.77	.84	$.78	.73	.82	.82	.74	.70	...	.79	.80
22-22.9	.92	.82	.74	.92	.96	.98	.92	...	...	...	.93	.84	.89	.79	.88	.78	.77	.87	.86	.78	.72	...	.82	.83
23-23.9	.95	.86	.77	.96	.99	1.02	.96	$.84	$.79	...	.96	.88	.93	.52	.92	.78	.80	.92	.90	.82	.76	...	.85	.86
24-24.9	.99	.91	.80	1.00	1.02	1.06	.99	.88	.81	...	.99	.91	.96	.55	.96	.82	.84	.97	.94	.86	.79	...	.87	.88
25-25.9	1.03	.95	.82	1.03	1.05	1.11	1.03	.95	.83	...	1.02	.95	...	.80	.99	.86	.88	1.01	.98	.90	.88	...	.90	.91
26-26.9	1.06	1.00	.85	1.07	1.09	1.16	1.06	.98	.86	...	1.05	.98	...	.92	1.03	.90	.91	1.06	1.02	...	...	...	.92	.93
27-27.9	1.10	1.05	.88	1.11	1.12	...	1.10	1.03	.88	...	...	1.02	...	.96	1.06	.95	.95	1.10	1.06	...	...	...	.95	...
28-28.9	1.14	1.10	.90	1.14	1.15	...	1.14	1.07	.90	...	...	1.06	...	.99	1.10	.99	.99	1.15	1.10	...	...	...	.97	...
29-29.9	1.17	1.15	.93	1.18	1.18	F.O.B.	1.17	1.12	.93	...	...	1.09	...	1.03	1.14	1.03	1.02	1.20	1.14	...	...	...	.99	...
30-30.9	1.21	1.19	.95	1.22	1.21	our	1.21	1.17	.96	F.O.B.	...	...	...	1.07	1.17	1.08	1.06	1.25	1.18	...	...	...	1.01	...
31-31.9	...	...	...	...	1.24	Pipe	1.24	1.22	.97	Ship	...	...	...	1.11	1.21	1.12	1.09	1.29	...	...	...	...	...	...
32-32.9	...	...	...	...	1.27	Line	1.27	1.27	1.00	...	...	...	...	1.14	1.25	1.16	1.13	1.34	...	...	...	...	...	...
33-33.9	...	...	...	...	...	...	...	1.32	...	1.23	...	...	...	1.18	1.28	1.20	1.17	1.38	...	...	...	$1.19	...	...
34-34.9	...	...	...	...	...	...	...	1.37	...	1.32	...	...	...	1.22	1.32	1.25	1.20	...	...	...	...	1.23	...	...
35-35.9	...	...	...	...	...	...	...	1.42	...	1.35	...	...	...	1.25	...	1.29	...	...	...	...	...	1.27	...	...
36-36.9	...	...	...	...	...	...	...	1.46	...	1.39	...	...	...	1.29	...	1.33	...	...	...	...	...	1.31	...	...
37-37.9	...	...	...	...	...	...	...	1.51	...	1.43	...	...	...	1.32	...	1.37	...	...	...	...	...	1.35	...	...
38-38.9	...	...	...	...	...	...	...	1.56	...	...	...	...	...	1.36	...	1.42	...	...	...	...	...	1.39	...	...
39-39.9	...	...	...	...	...	...	...	1.61	...	...	...	...	...	1.40	...	...	...	...	...	...	...	1.43	...	...
40-40.9	...	...	...	...	...	...	...	1.66	...	...	...	...	...	1.43	...	...	...	...	...	...	...	...	...	...

Newhall, McKittrick, Kern River, Kern Front and Round Mountain, 70 cents for all grades. *Posted by Union Oil Co. Same company's Brea Canyon schedule stops at $1.14 for 28 degrees and over, and Belridge and Lost Hills schedule stops at $1.32 for 37 degrees and over. By Standard Oil Co., effective October 15: El Segundo, 14 to 18.9 degrees, 80 cents; 19-19.9, 82 cents; 20-20.9, 85 cents; 21-21.9, 88 cents; 22-22.9, 92 cents; 23-23.9, 95 cents; 24-24.9, 99 cents; 25-25.9, $1.03; 26-26.9, $1.06; 27-27.9, $1.10; 28-28.9, $1.14; 29-29.9, $1.17; 30-30.9, $1.21. Wilmington, 14 to 16.9, 75 cents; 17-17.9, 77 cents; 18-18.9, 79 cents; from 19 degrees upward, prices same as Signal Hill.

tion Co. completed another tideland well, No. 16 State, pumping 390 bbl. of 27.5-gravity oil cutting 4 per cent from 4,529 ft. Sand trouble was bothering the well and the crew subsequently reentered the hole for a clean-out job. With abandonment of No. 1 Ward of Standard Oil Co. and No. 1-27 Orcutt of Union Oil Co. there is only one drilling well in the Aliso Canyon field of Los Angeles County. The lone incompleted drilling project is No. 11 Porter of Tide Water Associated Oil Co. now nearing 2,800 ft. In the Playa Del Rey field where Los Angeles city officials have been attempting to force abandonment of all wells not yielding a revenue of $25 per day the Empire Oil Co. has been bailing No. 1 Samarkand for several days but has not yet secured a natural flow. This well has a limited amount of oil sand and may make a pumping well when put on the beam.

Rocky Mountain Area

(Continued from Page 91)

R. C. Tarrant No. 3 Yunck, SW SW NW Sec. 12-34n-6w. Rig.
Olive Oil Co. No. 5 Winkler, NE NE NE Sec. 35-35n-6w. Drlg. 1,450 ft.
Texas Co. No. 2 Hessler, CSL NE NE Sec. 10-33n-5w. Cg. 2,972 ft.
Glacier Prod. Co. No. 1 Larson, CEL NE NW Sec. 35-36n-6w. Drlg. 2,800 ft.
Glacier Prod. Co. No. 2 Hawkins, NE NE SW Sec. 17-33n-5w. Drlg. 2,300 ft.
A. R. Pardue No. 2 Tribal-170, NW SW SW Sec. 7-32n-5w. Drlg. 2,075 ft.
R. C. Tarrant No. 4 State, SE NE SE Sec. 36-34n-6w. Drlg. 2,615 ft.
A. B. Cobb No. 1 Vargo, C SE NE Sec. 19-37n-4w. Drlg. 2,505 ft.; (C.D.).

Meagher County

Dan Drumheller No. 1 Moss Agate, SW SE NE Sec. 25-7n-7e. Drlg. 940 ft.

Teton County

The Gulf States Oil Co.-Zodiac Oil Co. No. 1 Coffee-Wallenstein, SW cor. Section 5-27n-5w, Pendroy district, has been plugged and abandoned at 2,525 ft. It was drilled to that depth last fall and shut down until another test could be drilled which is now plugging back to test a show in the Cut Bank sand.

Zodiac Oil Co.-Gulf States Oil Co. No. 1 Kellogg, NE NW NE Sec. 33-28n-5w. T.D. 2,846 ft.; at end 5-day test making 50 B.W. and 1 B.O.P.D.
R. C. Tarrant No. 1 Hoeschen, NE SE Sec. 34-27n-5w. R.O.G.

Toole County

R. G. Parrant No. 1 Holbrook, C NW NE Sec. 2-36n-3w. Drlg. 120 ft.
Ramona Oil Co. No. 3 Govt., CWL NE NW Sec. 12-35n-3w. Drlg. 1,520 ft.
Huso Bros. No. 1 Ellingson, C NE SW Sec. 14-35n-3w. Drlg. 600 ft.
Pfabe & Engleking No. 3 Hurley, near C NW NE Sec. 8-34n-2w. Drlg. 800 ft.
Montana Gas Co. No. 1 Campbell, C NW NE Sec. 19-37n-1e. Drlg. 1,520 ft.
Coolidge & Coolidge No. 5-A State, SW SW NW Sec. 36-36n-2w. Drlg. 1,225 ft.; 8¼-in. at 1,020 ft.
O. A. Nepsted No. 3 Haugen, NW NE NW Sec. 11-35n-3w. T.D. 1,605 ft.; good S.O. in Sunburst at 1,578-1,605 ft.; rng. 6⅝-in.
Superior Pet. Co. No. 8-A Govt., CEL NW NE Sec. 12-35n-3w. T.D. 1,617 ft. in Sunburst; S.O.
G. & A. Oil Co. No. 2 Krause, SE SE SE Sec. 9-35n-3w. T.D. 1,772 ft. in top contact; S.O.; fsg.
Superior Pet. Co. No. 8 Govt., CEL NW NW Sec. 12-35n-3w. Drlg. 1,470 ft.
Fulton-Commonwealth No. 2 Thompson, SE NE SE Sec. 28-35n-3w. S.I. at 1,728 ft.
W. M. Cassidy No. 1 Phoenix, CNL NW NW Sec. 28-35n-4w. S.D. after D.D. into sat. Madison L. from 2,325-58 ft.

Yellowstone County

Nelson Story-Hogan, Ltd., No. 1 Stallinberger, NE NE SW Sec. 18-3n-23e. T.D. 5,129 ft.; R.U. to res.; (formerly Signal O. & G. Co.).
Riverton Oil Co. No. 1 Fox, CEL NW NE Sec. 14-2n-23e. Res.; T.D 1,975 ft.; will U.R. 8¼-in. from 1,900 ft. to bttm.
R. C. Tarrant No. 2 Kelly, CEL NW SW Sec. 26-3s-24e. Drlg. 910 ft.

UTAH

Cane Creek Oil Co. No. 1 Govt., NW SW Sec. 31-26n-21e. T.D. 3,180 ft.; 6⅝-in. cmtd. 3,135 ft.; W.O.C.

Summit County

Longwell Pet. Co. No. 1, SE SW SE Sec. 35-3n-5e. Res. at 2,876 ft.; drlg. 2,965 ft.

Eastern Fields

(Continued from Page 92)

and Goshorn lease in Henry district. In Pleasant district, the Elk River Gas Co. is drilling at 4,350 ft. in the J. S. Brown test.

In Gilmer County, C. F. Wilson has a rig up on the Flora F. Ellyson farm, elevation 1,115 ft., DeKalb district. Here, Paul K. Weekley made locations for Nos. 1 and 2 Jacob W. Stern, elevations 747 ft. and 723 ft.

In Doddridge County, Hope Natural Gas Co. will deepen Nos. 7056 and 7057 S. W. Stout, in South West district. In McClellan district, Coffman Oil & Gas Co. has started drilling No. 2 I. E. Smith. In Greenbriar district, O. E. Garrett, Jr., has started drilling on the Loverna E. Gainer heirs farm.

In Pleasants County, Clyde E. Cokeley has a location for a test on the Arthur M. Cokeley farm in Grant district, elevation 726.5 ft. In Union district, James Fell and others started drilling on the Ralph Williamson heirs farm. In McKim district, F. R. Ball and others are down 1,200 ft. in the Poynter heirs test.

In Ritchie County, Hope Natural Gas Co. will drill on the A. T. Prather farm, Murphy district, elevation 1,063 ft.; Philip Lemon will start No. 2 Allie J. Scott Lemon, same district, elevation 726 ft.; in Grant district, Bickel Oil Co. will drill No. 8 Hall and Tetrick, elevation 860 ft.

In Marshall County, Union Gasoline & Oil Corp. made a location on the John A. Earnest farm, in Liberty district, elevation 1,086 ft.

In Tyler County, Delbert Bachelor made a location on the D. D. Davis farm in Central district, elevation 945.00 ft.

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North and East Texas

By
D. H. STORMONT

Wildcats in Many Counties in North and Eastern Texas

WICHITA FALLS, Tex., June 19.—North Texas continued its active wildcat pace of the past few months as important tests were watched in Archer, Clay, Montague, Baylor, and Wichita counties. The second oil well in Archer County's recently discovered Griffin pool and the possibility of a new Caddo lime pool for the eastern part of the county held the attention in that sector during the week, while an oil showing was reported in one wildcat, and a new one was staked in Clay County. Baylor County's Green pool received its second producer and a third well was completed in Montague County's new sand pool at Nocona.

Second producer for the deep Strawn sand Griffin pool of northwestern Archer County gives indications of being a better well than the discovery, which it offsets to the south. Deep Oil Development Co. and E. P. Griffin, NE cor. Section 1, Block 4, H.&T.C. Survey, 4½ miles southwest of the K.M.A. pool, flowed naturally at the rate of 166 bbl. of oil an hour on a short test after being shut in for about 12 hours. Operators drilled plug from the 7-in. casing at 4,385 ft., cemented on top of saturation drilled from 4,416-38 ft., and the hole filled with oil in 1 hour and 5 minutes. Operators were running tubing for further tests as the week closed.

Kadane Oil Co. No. 1 Hemmi, Section 60, Block 3, Clark & Plumb subdivision, indicating a new Caddo pool for the eastern part of Archer County, about 3 miles south of the town of Scotland, was swabbing and testing as the week closed. The test was acidized with 5,000 gal. from 5,165 ft. to 5,284 ft.

Clay County

Western Clay County was given another deep wildcat which will seek production in the lower Strawn sections. Staley Oil Co. of Wichita Falls staked location for No. 1 D. J. Percifield estate, in the northeast corner of the estate, which would place it in the SE cor. of Block 37, T. J. Belcher subdivision. The wildcat is contracted to 5,000 ft. and will be drilled by rotary. Location is 6 miles southeast of the Bridwell Oil Co. No. 1 Halsell discovery in Block 16, A. Belcher Survey, and 5 miles northeast of L. T. Burns No. 1 Browning, discovery, in Block 94, J. H. Belcher Survey.

First showing of oil in John E. Farrell No. 1 Malone, wildcat, in Block 12, T.&N.O. Survey, 5 miles southeast of Henrietta in Clay County, was reported the middle of the week. The showing was broken and lay at intervals between 3,948 ft. and 4,065 ft. The test was drilling ahead at the close of the week below 4,549 ft., with no more showings reported.

Burns No. 1 Wynn, Lot 34, H. Williams Survey, Abstract 704, 2 miles west of Joy, was drilling below 4,858 ft. with no more showings since the section from 4,397 ft. to 4,415 ft. was drilled in the previous week.

Baylor County

An extension of 4,000 ft. to the northeast for the Green pool of eastern Baylor County, 9 miles east of Seymour, was indicate. The producing horizon in the pool is Canyon sand and that horizon was believed to have been drilled at 2,610-20 ft. The well is showing some water and operators are preparing to acidize before making preliminary tests. The discovery well was completed for approximately 365 bbl. of oil and 100 bbl. of water daily, pumping.

Montague County

Third producer for the Burnett Strawn sand pool of Montague County, a mile west of Nocona, was seen when Stanolind Oil & Gas Co. No. 1 Zachary, Jacob Lenow Survey, Abstract 433, west offset to the discovery well, tested 100 ft. of oil on a 30-minute drill stem test. The operator had cemented casing at 4,634 ft., the same pay as found in the discovery well, which was completed for 576 bbl. of oil daily.

Montague County listed a failure as the week closed. Bridwell Oil Co. No. 1 Reynolds, nearly 2 miles northeast of Nocona and the Burnett field, failed to find pay in the Ellenburger where it was abandoned as dry at a total depth of 5,413 ft.

Wichita County

Wichita County's possible shallow oil-pool opener drilled by Roy Westbrook in the L. W. Ramming lands, Block 2, Henry Hastie Survey, has been abandoned after it tested too much water in the indicated pay zone from 1,250-57 ft. The well was the second unsuccessful test on the tract.

EASTERN TEXAS

DALLAS, Tex., June 19.—Continued development in the recently discovered Mabank area of Henderson County and about 3 miles northeast of the Flag Lake pool, together with added activity in the recently extended Leon County portion of the Navarro Crossing pool, featured field activities in the eastern Texas district. To add to the development in the area, a possibility was seen for another and larger recycling plant in the Grapeland area of Houston County.

Another test was nearing completion as the week closed in the Mabank area of Henderson County, while the only operator in the pool was preparing to start another test. Richards & Holloway, Inc., and Tyler & Smith No. 2 Rowe and Baker, southwest corner of the J. T. Childers Survey, and 500 ft. west of the discovery well, had recovered drill stem from the hole and was coring for the Woodbine sand below 2,800 ft. Richards & Holloway, Inc., skidded the derrick from No. 1 Bauguss, in the northwest corner of the J. Gardner Survey, 475 ft. southwest of the discovery well, to their No. 2 Bauguss location, 880 ft. southwest of No. 1 Bauguss. The discovery well for the area was completed for 70 bbl. of oil and more than 500 bbl. of water daily.

In the Leon County portion of the Navarro Crossing pool Humble Oil & Refining Co. staked location for No. 1 Alonzo Campbell, William Little Survey, 2,200 ft. northeast of the company's No. 1 Wesley Johnson, in the same survey. This location pushes the exploration still farther to the northeast. No. 1 Johnson is an outpost, drilling 3,500 ft. northeast of the discovery well. Humble Oil & Refining Co. No. 1 Polen, east offset to the discovery extensioner, has been completed for 84 bbl. of oil daily, and about 21 bbl. of salt water. Pipe is set at 5,881 ft., total depth 5,884 ft.

The Grapeland gas and distillate area of northern Houston County, where one recycling plant is in operation, may soon have another even larger, if unitization plans of operators are completed. A. D. Adams, of Grapeland, is at work unitizing lease and royalty owners of 325 acres in the J. W. Parker, R. C. Farris and Josiah Herod Survey. The deal offered is for George Abell, Midland operator, and Condor Petroleum Co., Abilene, to begin a well within 30 days with a second to start within 60 days. In the event the two are completed as gas wells, a recycling plant will be built, according to agreement.

New Tests

New wildcats were staked in Titus, Rusk, Anderson, Limestone, Fannin, and McLennan counties. The Titus County test will be a projected basal Glen Rose test of the Trinity series. It is located in the southern part of the county and will be the first test of its kind in that part of the county. Superior Oil Corp. has staked No. 1 Hargrove, in the northwestern corner of a 700-acre tract in the S. B. Patton Survey.

Rusk County's new test will be Golden Rod Drilling Co. No. 1 Hall Wood, J. I. Sanches Survey, 1½ miles northwest of Salem. Casing has been set and it is drilling below 100 ft. Anderson County's new location was a shallow wildcat in the Wells Creek area, 4½ miles north of Jarvis and about 12 miles east of Palestine. It will be the J. C. Cook No. 1 Ezell & Copeland, N. Hansen Survey, contracted to 1,600 ft. The new Limestone County wildcat is a probable deep test on the northwest edge of the Mexia field. There Albert Boggett and others spudded and shut down their No. 1 J. L. Thompson, P. Varela Survey. It is about a mile southeast of the Pure Oil Co. No. 1 Kendricks, deep failure. Both the Fannin County and the McLennan County tests carried shallow contract depths.

NORTH TEXAS COMPLETIONS

Archer County

Bridwell Oil Co. No. 3 J. S. Bridwell, 884-941 ft., 35 bbl. Guy J. Brown No. 1 J. J. Perkins, 991-1,004 ft., 10 bbl. Cable Oil Co. No. 1 V. D. Powell, 979-83 ft., 12 bbl. C. T. Hedges No. 21 T. L. Griffin A, 1,281-1,300 ft., 12 bbl. Shappell Oil Co. No. 4 J. L. Jackson D, 2,695 ft., dry.

Clay County

G. W. Cooper No. 2 T. P. Duncan, abandoned location. C. L. Ganaway No. 5 Stephenson, 227-43 ft., 3 bbl. W. H. Metzner No. 13 J. J. Taylor, abandoned location. Ted A. Norwood No. 3 T. P. Duncan, 1,169-83 ft., 80 bbl.

Cooke County

The Texas Co. No. 18 T. Truebenbach, 731-62 ft., 26 bbl.

Jack County

A. Cohen No. 1 State Bank of Bryson, 2,341-66 ft., 40 bbl. Danciger Oil & Refining Co. No. 8 Ivey, 3,112-38 ft., 612 bbl. Harper & Knappenberger No. 1 C. B. Jones, 3,214-42 ft., 355 bbl. Hitchcock and others No. 1 M. L. Fenter, 318 ft., dry. H. M. Tebay No. 2 E. F. Smith, 2,315-44 ft., 94 bbl.

Wichita County

Bell Oil & Gas Co. No. 39 Mrs. M. J. Powell, 1,220-44, 12 bbl. Kimbell & Bostic No. 7-A, S. M. Daniel, 1,297-1,335 ft., 5 bbl. D. H. Bolin No. 5 D. R. Preston, 3,925-4,002 ft., 505 bbl. R. R. Clark No. 1 Perkins, 1,925 ft., dry. EC Oil Co. No. 3 A. W. Burnside C, 2,965-3,123 ft., 10 bbl. J. E. Farrell No. 1 R. J. Bradley, 3,898-3,959 ft., 45 bbl. Fresno Oil Co. No. 32 L. F. Ramming A, abandoned location. E. P. Griffin No. 1 H. S. Griffin, abandoned location. Hamilton-Worsham No. 4 J. L. and T. J. Waggoner, 3,760-3,839 ft., 1,050 bbl. I. E. Harwell No. 2-D First National Co., 3,860-3,925 ft., 250 bbl. T. F. Hunter No. 45 Waggoner A, 3,81256 ft., 60 bbl. King Oil Co. No. 2 Waggoner B, abandoned location. King and Perkins & Cullum No. 1 R. J. Bradley, 3,733-95 ft., 840 bbl. King and Perkins & Cullum No. 7 W. P. Ferguson, 3,695-3,785 ft., 840 bbl. King and Perkins & Cullum No. 17 Charles Pettit, 3,696.3,752 ft., 811 bbl. King and Perkins & Cullum No. 18 Charles Pettit, 3,685-3,731 ft., 720 bbl. W. B. Omohundro No. 1 M. A. Love No. 1, 3,956-4,050 ft., 1,050 bbl. Reed, Glass & Crenshaw No. 15 First National Co. B, 1,630-47 ft., 12 bbl. Shell & Phillips No. 2 D. R. Preston B, 3,839-4,002 ft., 968 bbl.

Young County

M. J. and Lucy Grove No. 5 Emma Barrett, 554-79 ft., 5 bbl. Horwitz & Oldom No. 8 C. J. Taack, 691 ft., dry. C. J. Kleiner No. 32 J. B. McKinley, 601 ft., dry. N. A. Meyer No. 3 Prideaux Brothers, 580 ft.,

dry. Underwood & Campbell No. 43 Campbell C, 902 ft., dry. Ed Willis No. 2 D. R. Webb, 802 ft., dry. Brazos Young Corp. No. 1 Texas Co., 4,775 ft., dry.

Wilbarger County

King Oil Co. No. 24 W. T. Waggoner C, 1,108-24 ft., 2 bbl. W. T. Waggoner Estate No. 1 W. T. Waggoner Estate FF, 3,218-25 ft., 240 bbl.

EAST TEXAS FIELD COMPLETIONS

(One-hour gages)

Gregg County—Longview Area

Magnolia Petroleum Co. No. 25 R. B. White, 3,508-26 ft., 80 bbl. Stanolind Oil & Gas Co. No. 12 M. M. Custer, 3,540-60 ft., 33 bbl.

Gregg County—Kilgore Area

Magnolia Petroleum Co. No. 21 L. A. Griffin, 3,544-3,606 ft., 42 bbl. Rochelle Oil Co. No. 2 Waters, 2,535-65 ft., 56 bbl. Shell Oil Co., Inc., No. 89 J. B. Watson, 3,524-60 ft., 64 bbl.

Rusk County—Kilgore Area

York & Lawley No. 2 S. Williams, 3,610-65 ft., 50 bbl.

Rusk County—Joiner Area

Crabtree & Jeffries No. 11 C. C. and J. E. Giles, 3,700-35 ft., 65 bbl. Trico Oil Co. No. 2 L. J. Pinkston, 3,613-18 ft., 65 bbl.

Upshur County—Longview Area

Atlantic Refining Co. No. 21 I. Walker, 3,604-3,715 ft., 42 bbl.

EAST CENTRAL TEXAS COMPLETIONS

(24-hour gages)

Anderson County

Ownby Drilling Co. No. 1 M. Y. Lubben, 5,140-5,327 ft., 117 bbl.

(Continued on Page 114)

Ohio Fields

(Continued from Page 98)

Co. No. 1 Alpha Russell, Section 3, had a showing of gas in the Maxton sand at 815-42 ft.; abandoned after testing.

Monroe County, Washington Township, Section 18, Gold Crown Oil Co. No. 1 R. L. Pratt has a settled production of 2 bbls. of oil from the Keener sand at 1,438-47 ft.

Noble County, Beaver Township, Ohio Fuel Gas Co. No. 1 W. H. Ankrom, Section 27, is a gas well good for 820,000 cu. ft. open flow from the Berea at 1,702-11 ft.

Washington County, Liberty Township, Otto Heldman No. 1 Joseph Doyle, Section 14, found the Berea sand dry; total depth 1,727 ft. Palmer Township, Burt and others No. 53 James G. Hoon, Lot 1073, is a 2-bbl. pumper in the Peeker sand at 365-80 ft.

Perry County, Monroe Township, Ohio Fuel Gas Co. No. 7 George M. Jones Coal Co., Section 28, gaged 1,400,000 cu. ft. of gas open flow from the Clinton sand at 3,703-38 ft.

Lima Field

Boiler trouble is causing a delay on the deep test by the Sun Oil Co. on the H. E. Cross farm in Section 13, Plain Township, Wood County. Casing was set at 1,980 ft. and hole had been deepened to 1,985 ft. when the shutdown occurred.

Auglaize County, Clay Township, Ira Price No. 1 on fee property, Section 6, had top of Trenton at 1,383 ft.; was abandoned at 1,418 ft. after finding only a small showing of oil and gas.

Seneca County, Clinton Township, Charles Shaw and others No. 2 Maude Zoller, Section 26, hit the Trenton at 1,740 ft., with a showing of gas at 1,753 ft. and an oil showing at 1,783 ft.; shot with 100 qt. and made 10 bbl. the first 48 hours.

Franklin County, Madison Township, 1½ miles north of Groveport, Carl Blacksten and others have a rig up for a Trenton test on the E. J. Simms farm in Section 15.

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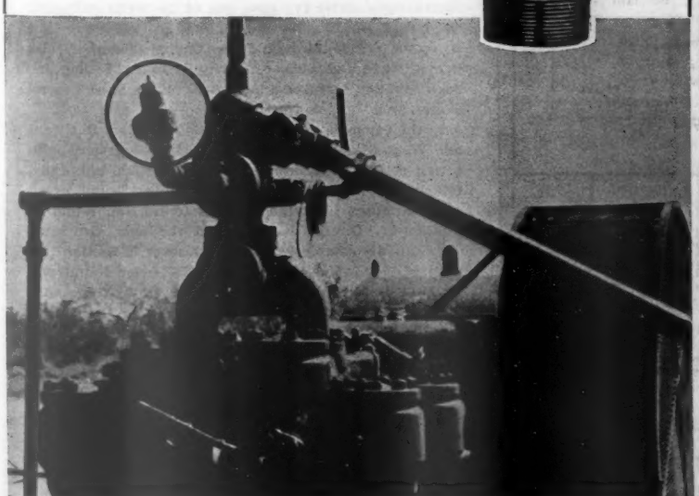

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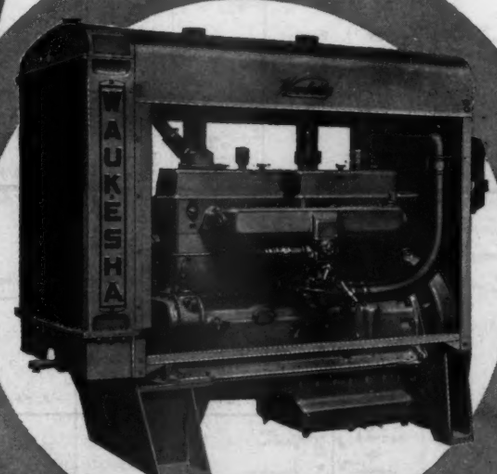


WAUKESHA
OIL FIELD ENGINES

West, Central and Panhandle Texas

13,638-bbl. Well in Crane; Record Gusher in Ivy Pool

By
D. H. STORMONT

FORT WORTH, Tex., June 19.—While large producing wells have not been infrequent in Crane County, they have not been as numerous in the recent past as they were in the heyday of the first big drilling campaign in West Texas, therefore, it is interesting to record the recent completion by the Gulf Oil Corp. of its No. 26 Waddell which started off at 13,638 bbl. per day from pay at 3,530-37 ft.

Two new wildcats on as many sides of the Crockett pool of Crockett County and tentative plans by one Crockett operator for a pipe line outlet, led the development in the West Texas district. Ector County has two closely watched wildcats which, as the week closed, were still in the unpredictable column. Twenty-four drilling permits were granted for wells in the Foster pool of Ector County, the total being divided equally between M.B.K. Drilling Co. and York & Harper. A second oil pool was indicated for Schleicher County, where a wildcat had 1,800 ft. of oil in 12 hours from the Cisco sand.

Gilcrease Oil Co. of San Antonio will lay a pipe line to Humble Pipe Line Co.'s McCamey station to provide an outlet for the Crockett pool on University of Texas land in the extreme northwest corner of Crockett County. That company's wells were recently increased to 13 by the purchase of Harry W. Black and others 160-acre lease which contained four oil wells. The tract is the northwest quarter of Section 13, Block 14, University lands. The two outposts in the Crockett pool area will both seek extensions to the field. J. S. Pittman is drilling No. 1 Humble-Corbett, 1,320 ft. from the north and 990 ft. from the west lines of Section 15, Block 2-B, G.C.&S.F. Survey, 4 miles northwest of the pool. The Steel Dust Oil Co. of San Angelo was spudding, as the week closed, its No. 1 George D. Atwood, Section 9, Block P.P., T.C.R.R. Survey, a mile southwest of the nearest producer in the pool. Production in the area is from the 1,500-ft. level with wells averaging about 40 to 60 bbl. of oil daily.

Two wildcats in Ector County centered considerable attention during the week as production possibilities were indicated. Gulf Oil Corp. No. 1 Holt, ½ mile west of the North Cowden field, which drilled below the regular pay of the field and encountered an oil showing to the extent of 47½ bbl. in 24 hours, received an increase in water from the deep horizon as the week closed, thereby somewhat discounting its possibilities of production. The well had indicated the deeper pay horizon when it found oil sand at 5,155-57 ft. The increase in water was reported in drilling to a total depth of 5,200 ft. Latest test of the well at the total depth yielded 37½ bbl. of oil and 180 gal. of water in 16 hours and the operator continued to test as the week closed. Barnes, Conkling & White No. 1 Thomas, Section 28, Block 45, T.&P. Survey, a wildcat in the western part of the county, was drilling below 4,493 ft., showing approximately 3 gal. of free oil when bailer is run every 4 or 5 hours. Pay section is in three parts and is believed to be at 4,237-45 ft., 4,260-86 ft., and 4,334-52 ft. Gas was found at 4,212-15 ft. There is possibility that the hole will be drilled to the deeper horizon found by Gulf Oil Corp. No. 1 Holt, if commercial production fails at the present level.

Drilling program of M.B.K. Drilling Co. of Odessa and York & Harper Co. of Midland has been outlined in the granting of 24 drilling permits to the two companies, each company receiving 12. M.B.K. Drilling Co. will drill six wells on its Foster lease in Section 8, Block 42, T.&P. Survey, four wells on its Gist lease in Section 9, same block and survey. York & Harper will drill all 12 of its wells on its Foster lease in Section 8, Block 42, T.&P. Survey. Both companies' leases are on the east side of the Foster pool.

Second oil pool within two weeks for Schleicher County was indicated at Harold B. Opp No. 1 J. T. Jackson, 4 miles northwest of Eldorado. The hole filled 1,300 ft. with oil in 16 hours after having found shows of oil in Cisco lime at 4,049-60 ft., total depth. Located in Section 41, Block L.L., G.H.&S.A. Survey, the test reported the oil showing 85 ft. higher than in Phillips-Interstate No. 1 J. A. Whitten, 1 mile northwest, which headed oil for 3 days and then was abandoned. It was drilled in 1929. The Opp wildcat is on a block of 2,120 acres, about 15 miles northwest of the county's first oil-pool opener discovered by Lone Star Gas Co. in Section 30, Block L, G.H.&S.A. Survey. The latter well was given a 24-hour gage as the week closed, flowing 64 bbl. of oil from the Strawn formation, with pay at 5,727-64 ft. It is located on the Bert Page ranch where two gas and distillate wells have been completed.

Northern Basin Area

Stanolind Oil & Gas Co. staked No. 1 J. B. Rayner, a wildcat, in Section 3, Block 30-C, P.S.L. Survey, Gaines County. It is on a block of 20,000 acres in the eastern part of the county which has been worked with seismograph. Drilling contract and projected depth had not been announced as the week closed, but it will undoubtedly seek the regular pay sections of Gaines County. The location is in the extreme eastern part of the county, 2 miles from the Dawson County line. Five miles west of it is J. T. Perryman No. 1 Doak, failure at 5,128 ft., and 4½ miles northeast is E. L. Wilson No. 1 Scanian, in the western part of Dawson County which showed promise of production but was finally abandoned at 4,965 ft.

Also in Gaines County, Humble Oil & Refining Co. abandoned No. 1 W. T. Caswell, Section 10, Block 24-A, P.S.L. Survey, at a total depth of 5,002 ft. The wildcat, which had checked high structurally, drilled into sulfur water after having cored nonporous but saturated sections higher up the hole.

An attempt to further extend the southwesterly trend of the Bennett pool, Yoakum County, will be made by the Mid-Continent Petroleum Corp. in the extreme northeastern corner of Section 760. The location is on the corporation's 160-acre J. G. Comer lease. It is ⅛ mile south and slightly east of J. E. Mabee No. 6 Willard, a 2,711-bbl. well in the extreme south end of the field.

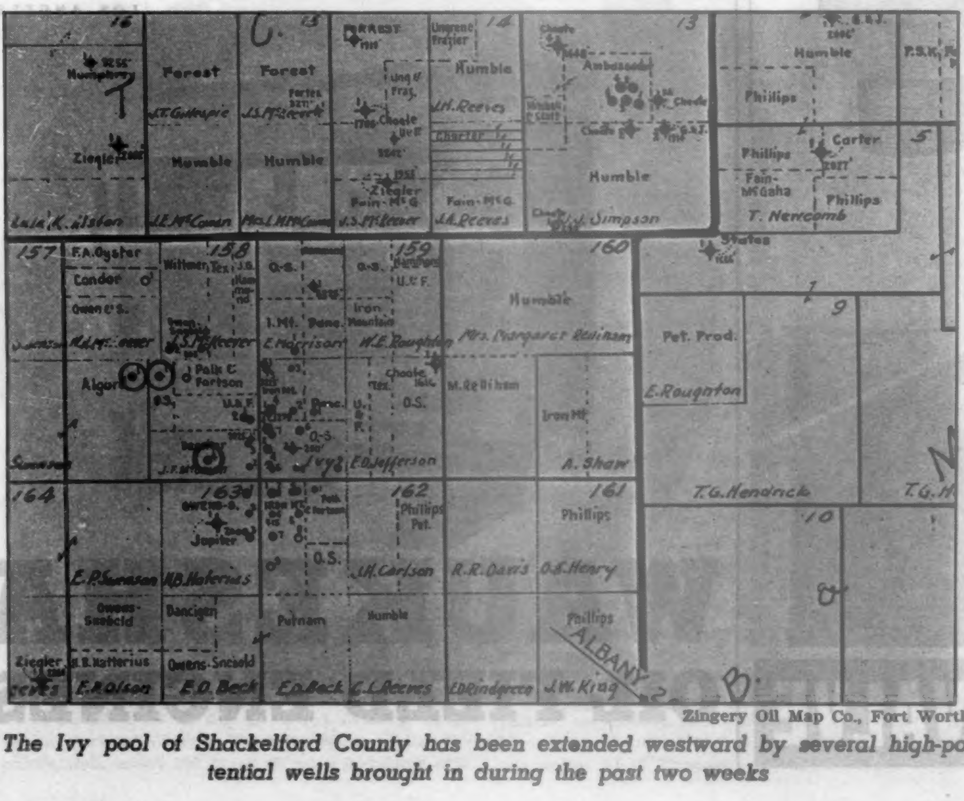
WEST CENTRAL TEXAS

Extensions to production in Shackelford County's increasingly active Ivy pool, one of the wells indicating the largest producer ever completed in Palo Pinto lime in either Shackelford or Jones County, together with general field and wildcat activity in Jones, Young, and Jack counties, featured a busy week in the West Central Texas area.

In the Ivy pool of Shackelford County, Tom B. Owens and W. F. Snebold extended production westward with a well estimated at between 6,000 and 6,500 bbl. daily, following several flows, the latest being 135 bbl. of oil in 25 minutes from the Palo Pinto horizon found at 3,167-90 ft. On the west side of the pool, the same operators are completing No. 2 McKeever in Section 158, west of No. 1 McKeever. No. 2 McKeever found pay at 3,244 ft. Pushing production 800 ft. to the south, Tom B. Owens and W. F. Snebold turned their third test in the Haterius lands into the tanks, flowing 100 bbl. of oil in 30 minutes. It is ¼ mile south of the discovery well in the area and topped the producing horizon at about 3,200 ft. About half a mile south of the Owens-Snebold No. 2 McKeever, Danciger Oil & Refining Co. drilled in No. 4 McCowan, two locations west of production, and it is being tested through tubing. Pay was drilled from 3,153 ft. to 3,205 ft.

A possible new shallow producing area for the northern part of Shackelford County was seen when A. B. Bissey set casing on top of the Saddle Creek lime at 730 ft. for a test of No. 1 John S. Smallery, Section 11, T.E. Survey, in the Fort Griffin area 14 miles north of Albany.

Several wells were attracting attention in Jones Coun-



Zingery Oil Map Co., Fort Worth

The Ivy pool of Shackelford County has been extended westward by several high-potential wells brought in during the past two weeks

ty as the week closed. In the county's original Avoca area, Sinclair Prairie Oil Co.'s north outpost in the Olsen lands completed a flow which averaged about 77 bbl. of oil per hour. Pay is from Palo Pinto lime at 3,225-36 ft. The Avoca-Griffin townsite pool, about 4 miles southwest of the Avoca pool, added a large producer drilled by Bert Fields on the B. C. Humphreys lands. It flowed at the rate of 3,404 bbl. daily, based on a flow of 413 bbl. of oil in 3 hours. It is in Section 22, H.&T.C. Survey.

Southwest of Avoca, a wildcat attracting considerable interest is being drilled by M. M. Gillespie of Fort Worth, having penetrated an oil showing in the Adams Branch lime below 3,160 ft. A ¼-mile east extension was added to the Akard pool when L. C. Hedrick completed his outpost in the Dorothy Akard lands for 54 bbl. of oil daily from 2,127-49 ft.

An indication of a new and deeper pay zone for Jones County's Guitar field was seen after T. D. Humphrey, of Dallas, and others No. 2 Guitar filled 700 ft. with oil from the lime at 2,149-59 ft. Operators were last reported running casing. The well was started as a Palo Pinto lime test, and was deepened from the field's regular Cook horizon, where it had been completed as a producer. The well is on the east side of the field.

Several wildcats in the northern portion of Young County were being closely watched as the week closed, one a producer and the other a scheduled 5,000-ft. wildcat. Hull & Silk were drilling below 3,300 ft. in No. 1 H. N. Tucker, 2 miles south and west of Olney. The well is contracted to 5,000 ft. North of the Knox pool, Trentman & Nunnelly No. 1 J. K. Guinn, in the northeast corner of Section 1974, T.E&L. Survey, is waiting for the official gage to be taken after flowing 57 bbl. of oil through open 2-in. tubing in 1 hour. Pay is at 4,015-27 ft., total depth.

Wildcat production in extreme western part of Jack County, near the Young County line will be sought in a test to be started this week by Taubert & McKee Drilling Co. for the Nelson Oil Syndicate. Location for the test was staked in the J. W. Bridwell lands of the T. B. Riddle Survey, 2 miles west of the Bryson townsite. It is contracted to 3,200 ft. and will test the 3,100-ft. pay of the Bryson pool with a possibility of being carried to the Caddo lime.

Wildcat production north of Caddo in Stephens County will be sought by J. R. Tolbert and others at a location scheduled to be staked early this week between the wildcat brought in last year by C. F. Greenwood and others and a well drilled by Humble Oil & Refining Co. Test will be carried to the Marble Falls horizon at about 4,010 ft.

WEST TEXAS COMPLETIONS

(24-hour gages)

Andrews County

Furhman Petroleum Co. No. 8-B Boner, 4,220-4,472 ft., 1,144 bbl. J. W. Tripplehorn No. 1 M. A. Thornberry, 4,300-4,480 ft., 15 bbl.

Crane County

American Liberty Oil Co. No. 9 Tubbs, 4,295-4,425 ft., 291 bbl. Gulf Oil Corp. No. 27 McElroy, 2,815-3,018 ft., 296 bbl. (old well drilled deeper). Gulf Oil Corp. No. 26 Waddell, 3,530-37 ft., 13,638 bbl.

Crockett County

Gilcrease Oil Co. No. 5-16 University, 1,420-63 ft., 60 bbl. Gilcrease Oil Co. No. 6-16 University, 1,443-1,506 ft., 54 bbl.

Ector County

Arkansas Fuel Oil No. 3-B Johnson, 4,100-4,226 ft., 593 bbl. Broderick & Calvert No. 6 O. B. Holt, 4,206-4,373 ft., 1,675 bbl. Gulf Oil Corp. No. 175 Goldsmith, 4,141-62 ft., 55 bbl. Gulf Oil Corp. No. 190 Goldsmith, 4,142-94 ft., 44 bbl. Gulf Oil Corp. No. 195 Goldsmith, 4,105-4,215 ft., 2,195 bbl. Llano Oil Co. No. 2 O. B. Holt, 4,150-4,218 ft., 728 bbl. Stanolind Oil & Gas Co. No. 14 J. E. Witcher, 3,992-4,180 ft., 1,821 bbl. Tide Water and Atlantic No. 6-C Holt, 4,229-4,427 ft., 2,030 bbl.

Gaines County

Amon G. Carter No. 1-A W. M. Moore, 4,880-4,990 ft., 1,110 bbl.

Hockley County

Texas Pacific Coal & Oil Co. No. 1 L. Lauhoff, 4,965-97 ft., 698 bbl. Western States Gasoline Co. No. 1 W. A. Coons, 4,935-5,004 ft., 1,266 bbl.

Howard County

Magnolia Petroleum Co. No. 6 M. H. O'Daniel, 2,640-

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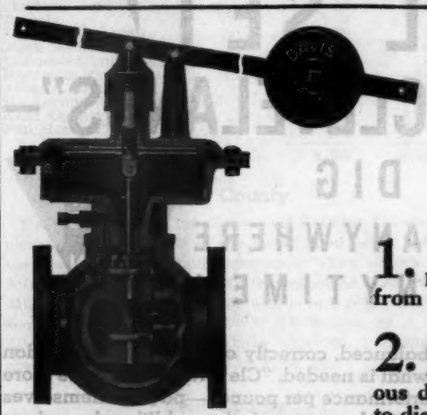

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2,816 ft., 132 bbl. Merrick & Lamb No. 6 Bell, 2,647-2,842 ft., 198 bbl. Ooley & McQuain No. 1 M. H. O'Daniel, dry and abandoned at 3,149 ft.

Pecos County

British American Oil No. 20 Payton, 2,060-2,105 ft., 116 bbl. British American Oil No. 22 Payton, 2,043-91 ft., 135 bbl. Cities Service Oil No. 2 Dorr, 2,032-92 ft., 357 bbl. Marvin-Henderson Oil No. 1 Toppett-Stanolind, 452-39 ft., 40 bbl. Kone Production Co. No. 11 Pecos Valley, 1,538-1,630 ft., 382 bbl. Mid-Continent Petroleum Corp. No. 6 Jasper Co. Realty, 1,628-60 ft., 246 bbl. Pecos State Oil No. 9 State, 2,045-89 ft., 305 bbl.

Tom Green County

Roush & Steward No. 1 Pugh, dry and abandoned at 194 ft.

Upton County

Texas Pacific Coal & Oil Co. No. 35-A Lane, 2,075-2,130 ft., 426 bbl.

Ward County

Luse & Ice No. 7 Blair, 2,023-90 ft., 360 bbl.

Winkler County

C. V. Lyman No. 1 Brown-Altman, 2,875-3,002 ft., 9,240,000 cu. ft. of gas. W.K. Royalty Co. No. 5-C Walton, 2,890-3,055 ft., 1,408 bbl.

Yoakum County

Aloco Oil Co. No. 2 Johnson, 4,800-5,230 ft., 388 bbl. Aloco Oil No. 2 G. R. White, 4,800-5,190 ft., 684 bbl. Aloco Oil Co. No. 8-A Willard, 4,850-5,150 ft., 716 bbl. Continental Oil Co. No. 2 Dowell, 4,975-5,143 ft., 745 bbl. Devonian Oil Co. No. 2 Hodges, 4,995-5,225 ft., 1,074 bbl. J. W. Murchison No. 4 Fairman, 4,841-5,100 ft., 572 bbl. Shell Oil Co., Inc., No. 4-C Baumgart, 4,865-5,168 ft., 1,373 bbl.

WEST CENTRAL TEXAS COMPLETIONS

(24-hour gage)

Brown County

Goss No. 1 Steel, dry and abandoned at 735 ft.

Callahan County

Jackson No. 1 Thompson, dry and abandoned at 1,875 ft.

Comanche County

DeArman No. 1 Moorman, 2,611-40 ft., 61 bbl. McCarter No. 3 Robertson, 642-50 ft., 25 bbl.

Jones County

Danciger Oil & Refining No. 3 Fain-McGaha, 1,938-54 ft., 301 bbl. Danciger Oil & Refining Co. No. 6 Roberts, 1,903-28 ft., 282 bbl. B. Fields No. 1-C Humphrey, dry and abandoned at 3,285 ft. Healey Drilling Co. No. 1 Steele, dry and abandoned at 3,060 ft. Humble Oil & Refining No. 3 Irving, 2,933-56 ft., 281 bbl. Smith No. 1 Cox-Hamilton, 3,259-63 ft., 5,000 bbl. Ungren & Frazier No. 16-C Dorsey, 2,136-47 ft., 502 bbl.

Shackelford County

Fortson & Taylor No. 1 McCown, 3,146-67 ft., 1,810 bbl. Iron Mountain Oil No. 8 Beck, 1,643-1,939 ft., 250 bbl. J. W. Keys No. 1 Diller, dry and abandoned at 830 ft. Kleiner & Heitzel No. 1-198 Morris, dry and abandoned at 1,733 ft. Roberts Co. No. 4 Davis, dry and abandoned at 1,589 ft.

Stephens County

W. B. Hamilton No. 1 Grant, dry and abandoned at 2,918 ft. Simons No. 1 Beck, dry and abandoned at 1,662 ft. H. E. Talbott No. 3 Wright, dry and abandoned at 3,959 ft.

Taylor County

Marray No. 1 Evans, 1,740-52 ft., 40 bbl.

PANHANDLE COMPLETIONS

(24-hour gages)

Carson County

Skelly Oil Co. No. 94 Schafer ranch, 3,139-95 ft., 594 bbl.

Hutchinson County

Continental Oil Co. No. 1 Carver, 2,945-3,155 ft., 18,421,000 cu. ft. of gas. Phillips Petroleum Co. No. 39 Cockrell ranch, 2,970-3,064 ft., 355 bbl. Whittington & Rubin No. 4 J. A. Whittenburg, 2,985-3,020 ft., 7,000,000 cu. ft. of gas.

Gray County

Hagy, Harrington & Marsh No. 2 E. Bell, 2,600-2,715 ft., 12,845,000 cu. ft. of gas. Phillips Petroleum Co. No. 4 Merton, 3,150-3,202 ft., 144 bbl.

Wheeler County

T. G. Williams No. 4 W. E. Bentley, 2,313-43 ft., 20 bbl.

Western Kentucky

(Continued from Page 86)

Hancock County, Pellville district: C. D. Walker No. 1 Ashworth heirs, drilling at 175 ft. Fordsville district, Courtney Coombs No. 5 Font Richards, drilling at 150 ft.

Henderson County, Scuffletown district: Palmer Drilling Co. No. 2 Oscar Letcher, location.

McLean County, Beech Grove district: H. H. Schwerz No. 1 Ed Taylor, rigging up.

Muhlenberg County, Belton district: Phillips Petroleum Co. No. 2 Clarence Boggess, dry hole, total depth 1,650 ft.

Ohio County, Taffy district: Ohio Oil Co. No. 24 J. M. Kirk, 9-bbl. well, total depth 476 ft.

EASTERN KENTUCKY

ASHLAND, Ky., June 19.—No oil or gas wells were reported completed in eastern Kentucky in the past week. A dry hole on the W. M. Haupt land on Duck Fork in Lee County was abandoned by Petroleum Exploration Co., and a dry hole on the Sherwood Osborn land on Little Doty Branch of Right Beaver in Knott County was reported by the Kentucky West Virginia Gas Co.

It is reported that operations have been resumed at the Schmidt deep test near Barbourville, in Knox County, but no accurate information could be obtained here. Work had been stopped at 4,000 ft., the contract limit, with forecasts of finding the St. Peter sandstone within the next 100 ft. The deep test operations have resulted in the leasing of between 40,000 and 50,000 acres in eastern Kentucky with the indicated intent of deep drilling.

At Louisa, county seat of Lawrence County, leases covering 4,500 acres of land in the Laurel Creek section have been filed for record in the county clerk's office during the past 2 or 3 weeks. The acreage is a few miles north of the Flat Gap-Red Bush district, the largest closure on the Paint Creek uplift. S. J. Cullinan, of Tulsa, filed 24 of the leases covering 3,000 acres, and Edward C. Lawson, also of Tulsa, filed 14 leases on about 1,800 acres. A third block of leases was filed by G. H. Rice, of Paintsville, covering 700 acres.

The operations in the various counties are as follows:

In Lee County, Thomas Whittner is down 250 ft. in No. 1 Tipton, on Billies Fork. Rush Cable has reached 300 ft. in No. 7 E. S. Moore No. 1, on Little Sinking. W. M. Wireman, trustee, is drilling at 450 ft. in No. 10, E. S. Moore 60-acre tract, on Little Sinking. Petroleum Exploration Co., having found Corniferous limestone barren, is going down to the Oriskany sand in No. 5 W. M. Haupt, on Duck Fork.

In Magoffin County, Rough River Corp. is still trying to drill by tools at 650 ft. in No. 4 H. B. Adams, on Rock Lick, but is meeting with difficulties.

In Knott County, Inland Gas Corp. is down 3,585 ft. in white slate, in No. 208 Lindsey Amburgy, on Carr's Fork. This may possibly be the total depth. The same company is idle at No. 209 Joseph Pigman, on Troublesome Creek, after having completed the rig, and is down 1,395 ft., in Salt sand, in No. 210 H. H. Pigman, on the Right Fork of Troublesome Creek.

Kentucky West Virginia Gas Co. was drilling at 156 ft. in No. 580 H. H. Smith, on Caney Creek, and is moving to No. 411 Richard Hall, on Right Beaver for a deepening operation.

In Floyd County, Kentucky West Virginia Gas Co. is rigging up No. 5253 George McKinney, on Deadening Fork of Toler Creek, and is down 473 ft., in sand, in No. 5254 Willard Hamilton, on Branham Creek branch of Mud Creek. The same firm has reached 1,332 ft. in the Jacob Damron land on Ivy Creek. This is a deepening operation.

In Martin County, Kentucky West Virginia Gas Co. is rigging up No. 5256 L. T. Mills, on Ramey Branch of Rockhouse Fork.

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CLEVELANDS

Michigan Field Report

By
O. C. PRESSPRICH

Series of Disappointments Is Encountered by Drillers

SAGINAW, Mich., June 19.—Riding the crest of the biggest production month in history, the Michigan oil industry quieted this past week so far as new development was concerned. Only nine new producing wells were completed and drillers ran into a series of disappointments, abandoned 16 tests as dry holes. On the other hand, three good-sized gas wells were completed, with combined potential just under 54,000,000 cu. ft. a day.

A Gulf Refining Co. completion in Redding Township, Clare County, provided more than 50 per cent of the week's potential oil production increase as No. 2 Alfred-State in Section 28 rated 3,200 bbl. The only other big well was the Clapsaddle, Fulton & Harris completion in Section 24, Columbia Township, Van Buren County. It flowed naturally at 1,000 bbl. daily.

Activity was most pronounced in Van Buren, but there were only four producers there, contrasting with 10 dry holes and 1 location abandoned. All four producers were in Columbia, but together their daily output amount to only about 1,500 bbl. a day. Walker Township, Kent County, had three producer completions totaling just over 1,000 bbl. daily and no dry holes.

The gas wells are in Clayton Township, Arenac, where W. E. Ross brought in No. 1 Peavy for 15,450,000 cu. ft.; in Montcalm's Home Township, where Leslie T. Barber completed No. 1 Sack-Petersen for 15,500,000 cu. ft., and in Winfield Township, Montcalm, where Taggart Brothers, Inc., got a well rated at 14,000,000 cu. ft.

In Allegan, Salem and Watson townships of Allegan County three tests were abandoned and an exploratory test also was abandoned in Marcellus Township, Cass County. In a section adjoining the Gulf Refining Co. well in Redding of Clare, J. V. Wicklund Development Co. chalked up a failure at 3,902 ft.

A Sun Oil Co. test in Paris Township, Kent County, was abandoned at 2,340 ft., but Swanson Consolidated Oil Co. got a 500-bbl. well in Walker Township, while Wolverine Natural Gas Corp. got another good for 450 bbl. a day. The other, completed by Voorhies Drilling Co., produced at 120 bbl. Tests were abandoned in Bridgeton Township of Newaygo and Hartford and Pine Grove of Van Buren.

The weekly permit list announced by the state Conservation Department indicated more extensive development in Clare's Redding field, operations being planned principally by Pure Oil Co. Of the 34 new tests being planned, six are for Redding and there is one for adjoining Freeman Township, while more activity also is listed for Kent County, which headed the list with eight permits. Six were spread through four townships of Van Buren, and Allegan County got five. Barry, Isabella, Gladwin, Arenac and Ottawa counties also will be the scene of one or more new exploratory tests.

The Oil and Gas Association of Michigan revealed May production in the state was 2,076,282 bbl. as output, averaging 66,993 bbl. a day, raised the figures for a single month to more than 2,000,000 bbl. for the first time. Van Buren County continued to set the pace, followed by Clare's Freeman-Redding pool. The number of producing wells increased by 80 to a total of 2,389.

Following is the summary of the past week's completions:

Allegan County

Allegan Township (2n-13w)—Columbia Oil & Gas Co. abandoned as dry at 1,662 ft. No. 1 Mrs. Lou Barnes, NE NE SW Section 6.

Salem Township (4n-13w)—The only development of the week in the Salem field was the decision of Gordon Oil Co. and others to abandon as dry at 1,736 ft. No. 1 George Weber, SE SE NW Section 10.

Watson Township (2n-12w)—The hole dry at 1,525 ft., W. Spencer Cook abandoned No. 1 R. Brooks, NE NW SE Section 34.

Arenac County

Clayton Township (20n-4e)—One of the three gas wells brought in during the week was the W. E. Ross No. 1 Peavy, S½ SE NE Section 9, for which daily production was listed at 15,450,000 cu. ft.

Cass County

Marcellus Township (5s-13w)—Anna Prather abandoned as dry No. 1 Donna V. Schurtz, C S½ S½ SE Section 20; drilling was halted at 1,166 ft.

MICHIGAN CRUDE PRODUCTION

Daily Average for May 1939

Pool—	Wells	Runs
Porter Yost	379	5,682
Greendale—Chippewa	207	1,602
Geneva—Midland	2	12
Sherman—Isabella	59	1,112
Wise—Isabella	6	741
Vernon-Leaton—Denver	81	900
Freeman—Redding	83	14,134
Grant—Clare	2	7
Beaverton	23	141
Edenville	31	1,000
Bentley—Gladwin	35	496
Buckeye-Wicklund-Oard	394	7,641
Ogemaw	239	1,712
Secord—Gladwin	2	0
Adams—Arenac	14	159
Clayton—Arenac	53	2,147
Tuscola	2	2
Saginaw-Bay area	60	76
Birch Run	25	41
Dundee—Monroe	3	18
Montcalm County	53	417
Allegan County	301	8,106
Muskegon	81	101
Kent County	36	2,501
Van Buren County	228	18,291
Total	2,399	66,943

Clare County

Redding Township (19n-6w)—Gulf Refining Co. completed the biggest well of the week, rated better than the rest of the producers combined, when its No. 2 Alfred-State came in at 3,883 ft. and gaged 3,200 bbl. daily after being acidized. The well is in C N½ NE SW Section 28. Adjoining, in SE NW NW Section 29, J. V. Wicklund chalked up a failure with No. 1 Skelley, abandoned at a total depth of 3,902 ft.

Kent County

Paris Township (6n-11w)—Sun Oil Co., attempting to extend the Kent County field, failed with its No. 1 Lena Fryting test, NE NE NE Section 26, which was abandoned at 2,340 ft.

Walker Township (7n-12w)—The three Walker completions were commercial wells, best being Swanson Consolidated Oil Co. No. 2 John Fletcher, SE SW SE Section 32, completed at 1,809 ft. and producing 500 bbl. after being acidized. Voorhies Drilling Co. acidized No. 1 Martin Flipse, W½ NE SW Section 33, on completion at 1,807 ft. and got daily production of 120 bbl. Acid treatment boosted potential to 450 bbl. daily in No. 1 Amanda Thomasma, SE SE SW Section 33, a Wolverine Natural Gas Corp. development completed at 1,778 ft.

Newaygo County

Bridgeton Township (11n-14w)—Charles D. Hoffman abandoned No. 1 D. C. Benjamin, SW NW SW Section 14, drilled to 2,022 ft.

Montcalm County

Home Township (12n-6w)—Leslie T. Barber completed No. 1 Sack-Petersen at 1,292 ft. A gas well, the hole flowed at the daily rate of 15,500,000 cu. ft.

Winfield Township (12n-9w)—Taggart Brothers, Inc., brought in a 14,000,000-cu. ft. gasser at 1,133 ft. The well is No. 13 Weikert-Schnick, C W½ Section 7.

Van Buren County

Bangor Township (2s-16w)—Crescent Oil Co. plugged No. 1 H. Kennedy, NE SW SE Section 12, after failing to get a show of oil at 1,065 ft.

Bloomingdale Township (1s-14w)—Jetter Drilling Co. acidized No. 2 B. M. Munn, NW SE SW Section 11, completed at 1,325 ft. Production was 60 bbl. daily. Fisher & McCall Oil & Gas, Inc., abandoned as dry at 1,492 ft. No. 1 B. S. Munn, NW SE SE Section 10.

Columbia Township (1s-15w)—Five of nine Columbia completions were abandoned as dry holes and a tenth location was abandoned, it being the Archie M. Henry No. 1 Ola Killifer, SE SE SE Section 3. In the same section, C N½ SE SE, Louis Rose abandoned No. 1 J. Ruess at 1,280 ft. Lang & Lewis No. 1 Landrus Brothers, NE NW SE Section 10, was dry and abandoned at 1,203 ft. No. 4 Roy Henry, NE NW NW Section 12, owned by J. W. McIntosh, rated 250 bbl. a day naturally on completion at 1,194 ft., while Daily Crude Oil Co. was getting 130 bbl. after acidizing No. 3 William Teal, NW NE NW Section 12, at 1,197 ft. No. 2 Fox heirs, NW SE NW Section 12, was dry and abandoned at 1,700 ft. J. B. Northcott No. 1 L. P. Parisian, NE NW NW Section 13, was abandoned at 1,269 ft. Fisher & McCall acidized No. 2 J. Morehead, NW NW NE Section 13, and got 70 bbl. a day, but Universal Gas & Oil Corp. test, No. 1 L. and M. Farrer, NE NW NW Section 13, was abandoned as dry at 1,243 ft. In contrast, Clapsaddle, Harris & Fulton hit a prolific producer in NW NW NW Section 24 when No. 3 Charles Pepper came in for natural production of 1,000 bbl. a day at 1,184 ft.

Hartford Township (3s-16w)—Alfred Violette abandoned No. 1 H. F. Stickney, NE NE SE Section 26, at 1,000 ft.

Pine Grove Township (1s-13w)—E. W. Collins abandoned No. 1 H. Willes, SW SW SE Section 23, at 1,365 ft.

Oklahoma Fields

(Continued from Page 104)

Powers & Quinlan No. 3 Osage, NE Section 35-24-6, Tidal-Osage pool, topped chat at 2,150 ft., total depth 2,190 ft., and was completed for 60 bbl. of oil naturally in 24 hours.

Olson Oil Co. No. 1-A Soldani, NW NW NE Section 24-26-4e, Olson area, topped Mississippi lime at 3,254 ft., but failed to find oil in the zone productive elsewhere in the area, and was reported abandoned at 3,270 ft., total depth.

Kay County

Shell Oil Co. and others No. 6 Lawrence, NE SE NW Section 5-28-1w, Braman area, Kay County, was bottomed at 3,432 ft., plugged back to 3,410 ft., and produced 850,000 cu. ft. of gas daily. It also pumped 4 bbl. of oil and 2 bbl. of water, daily.

Southwestern Oklahoma

Tom Palmer No. 3 Dixon, NW SW NW Section 35-6-10w, Cement field, Caddo County, had Pontotoc sand at 3,414-63 ft., was bottomed at 3,471 ft., perforated casing at 3,266-80 ft., and pumped 97 bbl. of oil in 4 hours, equivalent to 582 bbl. a day.

Ohio Oil Co. No. 6 Bruce, SE SW NE Section 11-5-9w, Cement pool, pumped 60 bbl. of 35-gravity oil daily from Pontotoc sand series beginning at 3,851 ft., total depth 3,980 ft. Production was through perforations in casing at 3,880-3,942 ft.

Two new wells in Stephens County were completed,

and two old wells were reworked. Carter & Ring No. 17 Arm, SE SE NE Section 26-1s-5w, Velma area, had a hole full of water in Pontotoc sand at 780-810 ft., total depth, and was abandoned.

George L. Pace and others No. 1-C Bush, NE SE NW Section 3-2s-8w, Empire field, found Pontotoc sand at 2,214-21 ft., total depth, and pumped 6 bbl. of oil and 10 bbl. of water in 24 hours.

Cities Service Oil Co. No. 1 Miller, NE NE NE Section 5-2s-8w, an old well in the Empire field, was deepened from 2,185 ft. to sandy lime at 2,224-48 ft., total depth, and pumped 50 bbl. of 39-gravity oil and 50 bbl. of water daily, and was recompleted.

C. W. Tomlinson No. 2 Montgomery, NW NW SE Section 11-2s-8w, an old well in the Comanche pool, was deepened from 2,049 ft. to Pontotoc sand at 2,045-55 ft., total depth 2,059 ft., and pumped 71 bbl. of 41-gravity oil in 24 hours, recompleted.

In Comanche County, T. M. Creel and others No. 1 Karthouse, NW NW SW Section 35-2n-10w, Lawton area, was bottomed at 1,048 ft., plugged back to 1,018 ft., shot, and was dry and abandoned.

In Beckham County, Northern Drilling Co. No. 2 Van Vector, NW SE NE Section 25-8-22w, had sand at 985-87 ft., was bottomed at 1,107 ft., and gaged 3,000,000 cu. ft. of gas in 24 hours, with 375 lb. rock pressure. Production was from both granite wash and Pontotoc sand.

R. O. Ray and others No. 1 Rogers, SW SW SE Section 31-1n-19w, Tipton area, Jackson County, was estimated good for 100 bbl. of oil in 24 hours, from granite wash at 2,525 ft., total depth.

In the same district, R. H. Fohs and others No. 1 Southall, NE NW SW Section 2-1n-20w, was bottomed at 1,592 ft., perforated casing at 1,460-80 ft., and pumped 14 bbl. of oil daily.

New Work in Southwest

In Beckham County, Northern Drilling Co. No. 1 Thomas, NE NE SE Section 26-8-22w, was rigging up rotary tools.

Kiowa County: Shell Oil Co. No. 1 Ratcliff, SE SE NW Section 19-7-17w, was a rig.

Caddo County: Phillips Petroleum Co. No. 3 Garrison, NW SE NE Section 34-6-10w, Cement field, was a cellar.

Grady County: T. H. McCasland No. 4 Horton, SW NW SE Section 8-3n-5w, Knox area, was a location.

Jackson County: Hal Vaughn No. 5 Stoker, NE SE SW Section 11-1n-20w, had dug pits; same operator's No. 1-A Garrett, SW SW SW Section 12-1n-20w, Altus field, was drilling below 305 ft.

Stephens County: Sunray Oil Co. No. 1 Hyner, SE SE NW Section 12-1n-5w, an old well in the Doyle pool, was building derrick to deepen; W. C. Brainard No. 5-B Gilmore, NW NW SE Section 10-2s-5w, Velma area, set 6⅝-in. casing at 832 ft. on top of sand, total depth 855 ft., and was waiting on cement; Carl Keister No. 1 Smith, NE SE NW Section 13-2s-4w, Milroy pool, was rigging machine; T. H. McCasland No. 2-A Burkleo, NW NW NW Section 4-2s-8w, Empire field, was a location; George L. Pace and others No. 1-B Parker, NE NE SE Section 11-2s-8w, Comanche area, was a derrick.

Southwest Texas Fields

(Continued from Page 93)

in. choke. R. B. Bryant and others No. 1 Duphrone & Klein, total depth not reported, initial production 200 bbl., ⅛-in. choke. Graham Oil Co. No. 5 Moore, 7,107 ft., 100 bbl., 5/32-in. choke. Shasta Oil Co. No. 1 Evans, perforated casing 6,865-70 ft., 140 bbl., ⅛-in. choke.

Caldwell County

Luling field: Rio Bravo Oil Co. No. 7 Moore, 2,160 ft., 83 bbl. of oil, 141 bbl. of water, pumping. Taylor Refining Co. No. 6 Dorn, 2,117 ft., 32 bbl. of oil, 159 bbl. of water, pumping.

Duval County

Hoffman field: Cuellar Brothers No. 6 fee, 2,880 ft., abandoned. Magnolia Petroleum Co. No. 36 Well, 2,841 ft., 35 bbl., pumping. Loma Novia field: Bridwell Oil Co. No. 2 Welder, 2,952 ft., abandoned. Longhorn field: Longhorn Drilling Co. No. 5-A Miller, sand 4,032-39 ft., 194 bbl., 5/32-in. choke.

Guadalupe County

Darst Creek field: Lincoln Petroleum Co. No. 2 Appling, 1,700 ft., abandoned.

Jim Hogg County

Kelsey field: Humble Oil & Refining Co. No. 14 Bass, 4,734 ft., 95 bbl., 7/64-in. choke. Humble Oil & Refining Co. No. 12 McGill Brothers, 4,743 feet, 97 bbl., 7/64-in. choke.

Jim Wells County

Blucher field: Shell Oil Co., Inc., No. 2 Von Blucher, 8,004 ft., abandoned.

Medina County

Chacon Lake field: Charles Wagner No. 39-A Medina Irrigation Farms, 385 ft., 1 bbl. per day, pumping.

Nueces County

Luby field: Sun Oil Co. No. 2 J T. Butts, perforated casing 5,049-41 ft., 119 bbl., ⅛-in. choke.

San Patricio County

East White Point field: Houston Oil Co. No. 4 Baldwin, perforated casing 5,648-58 ft., 288 bbl., 5/32-in. choke. Plymouth Oil Co. No. 1 Heflebower, perforated casing 5,664-74 ft., 140 bbl., 7/64-in. choke. Shell Oil Co., Inc., No. 1 John Kirk, perforated casing 5,640-47 ft., 135 bbl., ⅛-in. choke. White Point field: J. B. Cage and others No. 2 Dunn, 6,018 ft., abandoned.

Refugio County

La Rosa field: Coronado Corp. No. 6 Spaulding, perforated casing 6,320-23 ft., 158 bbl., ⅛-in. choke. Hewitt & Dougherty No. 5 Rooke, perforated casing 6,332-38 ft., 170 bbl., ⅛-in. choke.

Starr County

Sun field: Sun Oil Co. No. 5 Olivarez, perforated casing 4,656-65 ft., 96 bbl., ⅛-in. choke.

Zapata County

Comitas field; Nordan & Morris No. 17-C Haynes, 1,330 ft., abandoned.

La.-Ark. Fields

(Continued from Page 87)

1,234 ft. W of SE cor. SW Section 29-21-7, pumping 5 bbl. per day, total depth 1,450 ft.

Zwolle—Sabine Parish

Reeves & Stoma No. 1 Ezernack, 660 ft. S and 330 ft. W of NE cor. NW Section 8-7-13, total depth 2,361 ft.; treated with 2,000 gal. of acid, showing of oil, abandoned.

ARKANSAS COMPLETIONS

Wildcat—Calhoun County

J. R. Lockhart No. 1 Southern Kraft Corp., C SE NW NW Section 17-14-13, total depth hard grey lime 5,095 ft., dry and abandoned.

Magnolia—Columbia County

Southwood Oil Co. No. 1 L. A. Grelling, C NE NW Section 23-17-20, set 7-in. casing at 7,536 ft., 18 bbl. per hour through 12/64-in. choke, tubing and casing pressure 1,500 lb., total depth 7,575 ft.

Lewisville—Lafayette County

Erwin & Leach and East Texas Refining Co. No. 1 Harleston, 668 ft. E and 330 ft. S of NW cor. SE NW Section 23-16-24, top of anhydrite 3,545 ft., base of anhydrite at 3,691 ft., total depth 3,765 ft., dry and abandoned. Erwin & Leach and East Texas Refining Co. No. 1 F. G. Wright, C N½ NW SE Section 24-16-24, top of anhydrite 3,440 ft., base of anhydrite 3,611 ft., total depth 3,695 ft., dry and abandoned.

Troy—Nevada County

Benedum & Trees Oil Co. No. 11 Groves Land & Timber Co., 150 ft. N and 330 ft. E of SW cor. NW NW Section 10-14-20, pumping 80 bbl. per day of clean oil; top of Tokio at 2,108 ft., set 7-in. casing 2,108 ft., total depth 2,109 ft. Berry Asphalt Co. No. 1 Groves Land & Timber Co., SE cor. N½ SW Sec. 4-14-20, total depth 2,122 ft., pumping 250 ft. of fluid, 10 per cent oil.

EAST TEXAS BORDER COMPLETIONS

Rodessa—Marion County

Texas Co. No. 4 Chatten, 467 ft. from W line and 2,050 ft. from N line of the lease, William R. Myers Survey, 378 bbl. per day through ¼-in. choke, tubing pressure 400 lb., casing pressure 800 lb., treated with 3,000 gal. acid, gas-oil ratio 1,325/1, total depth 5,984 ft.

East Texas Fields

(Continued from Page 109)

Freestone County

Johnson Drilling Co. No. 1 D. O. Nettles, dry and abandoned at 3,705 ft.

Kaufman County

Griffith & Griffith No. 1 B. Murray, dry and abandoned at 3,512 ft.

Leon County

Humble Oil & Refining Co. No. 1 C. R. Polen, 5,794-5,884 ft., 84 bbl.

Titus County

Magnolia Petroleum Co. No. 4 J. A. Chapman, 4,252-4,328 ft., 310 bbl.

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Canadian Fields

Completions and Operations in Northwest and in Ontario

By VICTOR LAURISTON

CHATHAM, Ont., June 17.—Deliveries to Calgary refineries from the Turner Valley field in May totaled 638,994 bbl. compared with 513,907 bbl. in April. The only month exceeding the May figures was September 1938 with 746,026 bbl. Pipe line runs for the 5 months of 1939 were 2,264,031 bbl. compared with 1,991,814 bbl. in the same period last year.

Of the May deliveries, British American Oil Co. took 129,092 bbl. of crude and 357 bbl. of naphtha and Imperial Oil, Ltd., took 498,242 bbls. of crude and 11,303 bbl. of naphtha. Three increases in allowables were made in May, the high figure, 25,000 bbl. a day, becoming effective May 23.

Allowables Increased

Effective June 13, aggregate crude allowable for Turner Valley was increased from 25,000 to 27,000 bbl. a day.

Turner Valley Producers

In West Central Turner Valley, East Crest Oil Co. No. 4, LSD 8, Section 6-19-2w5, finished in a tight lime at 8,040 ft., increased production to over 700 bbl. in 2 days after acidizing with 8,000 gal. Tests are being continued.

West of the proven field, Okalta Oil Co. No. 6, LSD 3, Section 30-18-2w5, is testing production from the upper lime after installing compressor.

In Section 20-18-2w5, York Oils No. 2, LSD 6, finished at 8,026 ft., is testing after acid treatment.

In Section 9-18-2w5, George Harris and associates No. 1, LSD 13, is on 30-day test with back pressure applied to hold the well down to around 300 bbl. The upper lime will later be given light acid treatment and gun perforated.

In Section 32-18-2w5, Pacific Petroleums (formerly West Turner) No. 1, LSD 2, was acidized with 7,000 gal., increasing flow through 1-in. choke to 1,479 bbl. Allowable was increased from 452 to 541 bbl. Okalta Oil Co. No. 8, LSD 6, Section 16-18-2w5, is on production with 356 bbl. allowable.

Tests in the Lime

In Section 32-18-2w5, Oil Ventures No. 1, LSD 14, is below 7,487 ft. after getting the Madison lime at 7,353 ft. George Harris and associates No. 2, LSD 15, is below 7,220 ft. after getting the lime contact with good oil and gas shows at 7,100 ft. British Colonial Oils No. 1, LSD 5, is below 8,071 ft. after getting the Madison at 7,911 ft.

In Section 31-18-2w5, west of the main field, Anglo-Canadian Oil Co. No. 5, LSD 8, is below 8,247 ft. after getting the Madison at 8,177 ft. and cementing casing at 8,180 ft.

West Central Field

In Section 25-19-3w5, West Central Turner Valley, Argus Royalties No. 1, LSD 14, is in the Belly River formation below 2,838 ft.

In Section 7-19-2w5, Anglo-Canadian Oil Co. No. 8, LSD 11, is below 2,269 ft.

In Section 5-19-2w5, Calwin Royalties No. 1, LSD 15, has set whipstock and is sidetracking below 6,326 ft. Royalite Oil Co. No. 40, LSD 4, is below 6,141 ft. Winalta Royalties No. 1, LSD 1, is below 6,478 ft.

In Section 32-18-2w5, Vantage Oils No. 1, LSD 12, is standing at 1,700 ft. Royalite No. 42, LSD 4, is below 3,295 ft.

In Section 29-18-2w5, Royal Canadian Oil Co. No. 3, LSD 12, is below 5,601 ft. Command Oils No. 2, LSD 11, is working on cellar, and will spud this month. Royalite Oil Co. No. 39, LSD 3, is below 6,605 ft.

In Section 17-18-2w5, Extension Royalties No. 2, LSD 11, is below 6,375 ft. after getting the Jumping Pound sands at 5,990 ft. Anglo-Canadian Oil Co. No. 4, LSD 6, is in the Kootenay formation below 7,820 ft. and getting close to the limestone. Anglo-Canadian No. 6, LSD 3, is below 6,418 ft. Royalite Oil Co. No. 41, LSD 1, is below 4,883 ft.

In Section 5-18-2w5, Brown Oil Corp. No. 6, LSD 15, is below 979 ft. Theo Grewer No. 1, LSD 14, is below 1,016 ft.

West of the main field, Scottish Petroleums No. 1, LSD 16, Section 19-18-2w5, is below 8,221 ft. and getting close to the limestone.

North Turner Valley

In North Turner Valley, Royalite Oil Co. No. 43, LSD 2, Section 22-20-3w5, is below 2,086 ft.

In the Waite Valley area, National Petroleum Corp. No. 3, LSD 4, Section 25-20-4w5, is in the lower Benton formation below 1,320 ft. after encountering a gas flow at 1,200 ft.

Home Oil Co. has let contract to Drilling Contractors, Ltd., of Calgary, for drilling Home-Millarville No. 3, LSD 1, Section 33-20-3w5, and Home-Millarville No. 4, LSD 9, Section 28-20-3w5.

Border Fields

On the Del Bonita structure, southern Alberta, Terminal Oil Co. No. 1, NE¼ Section 18-1-21w4, was acidized and gun-perforated in the upper sand, increasing production to around 200 bbl. a day of 35-gravity crude. Terminal No. 2, NW¼ Section 7-1-21w4, is rigged, to resume from 175 ft.

On the Rogers-Imperial structure east of Coutts, Range Oil & Gas Co No. 3, LSD 15, Section 20-1-11w4, standing since last fall with 8¼-in. casing cemented at 2,653 ft., is preparing to deepen to the gas sand around 2,900 ft.

In the Taber field, Border Petroleums No. 1, LSD 5, Section 32-19-17w4, is below 3,375 ft., about 55 ft. in the lime, after making water shutoff.

Tests in the Foothills

On the Ram River structure, in the northern foothills, Ram River Oils No. 1, Township 38-12w5, is in the Devonian limestone below 1,200 ft.

On the Grease Creek structure west of Olds, Grease Creek-Northwest Co. No. 1, LSD 2, Section 13-29-7w5, is below 3,550 ft. after encountering two

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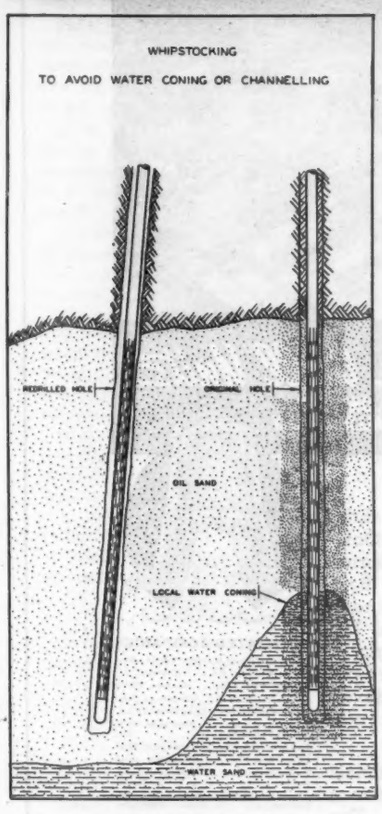

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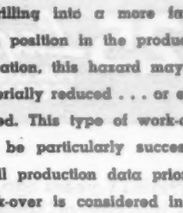

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good gas shows, and logging about 2,000 ft. higher than Turner Valley west flank tests. It is drilling 16-in. hole and carrying 13-in. casing behind the tools.

On the Jumping Pound structure west of Calgary, Rabson Oils No. 1, LSD 3, Section 36-24-5w5, is in the lower Benton formation below 1,299 ft.

On the Highwood-Sinclair structure, Green Valley Oils No. 1 Banner, LSD 6, Section 34-17-3w5, is below 6,946 ft. and arranging to change to rotary outfit.

On the Watson structure, Mar Jon Oil Co. No. 5, LSD 1, Section 29-8-2w5, is working on cellar.

On the Clearwater structure, Altoba No. 1, Section 31-34-9w5, has resumed from 2,450 ft. after tests showed considerable gas.

Steveville Field

In the Steveville field, east of Calgary, Anglo-Canadian Oil Co. No. 2, LSD 4, Section 14-20-11w4, bottoming at 3,262 ft., is making water shutoff. Canadian No. 1, LSD 2, Section 13-21-12w4, gun. perforated at 2,740 ft., developing 12,000,000 cu. ft. a day of wet gas, and is trying to make water shutoff. Anaconda Oil Co. No. 1, LSD 15, Section 9-22-12w4, has resumed from 2,420 ft., after letting contract to Union Drilling Co. to complete the well.

Survey Work in Alberta

Dr. G. S. Hume of the Geological Survey of Canada during the summer will geologize and map the Jumping Pound structure in the foothills west of Calgary. The earlier wells in this area are believed to have been drilled too far east, and the Rabson Oil Co. test recently started is expected to encounter conditions similar to the Turner Valley west flank. This well started in the cardium sandstone just above a fault, and if the angle of dip is 60° should find a cardium repetition on the down side of the fault. Dr. Hume will also do some work in the Lloydminster and Ribstone areas. In the former, gas has been found in the Saskatchewan and oil in the Alberta end of the field; while in the Ribstone fields, two wells are pumping about 20 bbl. a day each, the low grade crude being refined for distillate which is marketed locally.

Another geological party in charge of Conrad Hage will work in the Wildcat Hills area of the foothills, which includes the Grease Creek structure north of the Bow River. A third party in charge of Hugh Beach will work in the Moose Mountain area, where Moose Oils, Ltd., has developed light crude and gas production at a comparatively shallow depth in the Devonian limestone.

California Oil Field Operations For March, 1939

According to figures collected by the American Petroleum Institute, the total production of crude oil in California for March amounted to 19,283,785 bbls., an average of 622,058 bbls. per day. This is a decrease of 47 bbls. per day under February production.

Total stocks of crude and all products in Pacific Coast territory increased during the month 475,325 bbls. The total stocks at the end of the month were 161,592,968 bbls. The total stock increase for 1939, up to March 31, was 3,908,679 bbls.

CRUDE PETROLEUM PRODUCTION

(Figures of production and stocks are in barrels of 42 gallons)

	Total production	Daily average		
Group No. 1—	March	Mar., 1939	Feb., 1939	Mar., 1938
Arvin	5,061	163	97	.....
Belridge—North	370,953	11,966	12,257	15,143
Belridge—South	37,423	1,207	1,171	1,466
Canal	138,459	4,466	4,081	1,253
Canfield Ranch	1,428	46	24	160
Coalinga	328,444	10,595	9,767	11,424
Cole's Levee	6,983	225	180	.....
Edison	70,072	2,260	2,439	3,903
Elk Hills	313,810	10,123	10,175	11,120
Fruitvale	218,640	7,053	7,305	8,970
Greeley	55,537	1,791	2,090	3,294
Kern River	348,846	11,253	10,938	14,170
Kettleman Middle Dome	1,142	37	40	71
Kettleman North Dome	1,739,082	56,100	57,830	82,264
Lost Hills	106,009	3,420	3,323	3,876
McKittrick	120,856	3,899	3,762	3,766
Midway-Sunset	1,718,505	55,435	55,978	70,728
Mountain View	266,847	8,608	9,243	12,608
Mount Poso	411,456	13,273	13,775	19,789
Rio Bravo	252,491	8,145	7,720	1,002
Round Mountain	360,030	11,614	12,485	17,094
Ten Section	282,373	9,109	8,955	5,237
Tupman	8,186	264	275	.....
Wasco	27,982	903	696	.....
Wheeler Ridge	11,517	372	399	309
Group No. 2—				
Capitan	82,649	2,666	2,721	3,116
Elwood	143,647	4,634	4,718	7,178
Rincon	90,626	2,923	3,667	3,770
San Miguelito	72,058	2,324	2,285	3,008
Santa Barbara	8,946	289	381	504
Santa Maria	533,279	17,202	14,909	17,330
Summerland	669	22	34	32
Ventura Avenue	1,044,235	33,685	34,273	36,941
Ventura-Newhall	180,683	5,829	5,575	4,657
Watsonville	930	30	30	50
Group No. 3—				
Brea-Olinda	174,729	5,636	5,612	6,082
Coyote—East	78,346	2,527	2,580	3,797
Coyote—West	247,070	7,970	7,985	8,418
Dominguez	658,930	21,256	21,259	28,857
El Segundo	106,993	3,451	3,757	15,989
Huntington Beach	889,011	28,678	27,845	34,234
Inglewood	392,048	12,647	12,692	16,146
Lawndale	2,215	72	71	69
Long Beach	1,503,841	48,511	49,714	56,847
Los Angeles-Salt Lake	15,604	503	552	560
Montebello	465,635	15,021	13,792	8,112
Playa Del Rey	164,321	5,301	5,360	6,710
Potrero	27,239	879	1,064	294
Richfield	263,872	8,512	8,155	9,487
Rosecrans	472,547	15,243	15,855	5,958
Santa Fe Springs	877,831	28,317	28,812	38,996
Seal Beach	235,959	7,612	7,638	9,596
Torrance	678,666	21,892	21,259	7,941
Whittier	30,545	985	986	892
Wilmington	2,638,529	85,114	83,519	100,695
Total March	19,283,785	622,058	622,105	723,913
Total February	17,418,952	622,105	.....	.....
Decrease	*1,864,833	47	.....	.....

*Increase.

WILDCAT OPERATIONS

CALIFORNIA

IMPORTANT WELLS AND NORTHERN CALIFORNIA WILDCATS

Company, well, location and county—	S.T.R.	Depth	Status
Union Oil, No. 5 Vicente, Santa Maria Valley, S. Barb.	21-10-34	5,279	sd. sh. drlg.
Hogan Pet., No. 1 Zabala, Casmalia, Santa Barbara	33- 9-34	1,100	cleaning out
Petrol Corp., No. 32-A Tognazzini, Gato Ridge, S. Bar.	9- 8-32	3,100	flow 265 b.d.
Arnold, E. C., No. 2 Careaga, Los Alimos, S. Barbara	8- 8-33	6,838	cmtd. fish
Field, O. C., No. 1 White, Cat Canyon, Santa Barbara	21- 9-33	6,198	hd. sh. drlg.
United West. Oil, No. 1 Los Olivos, Santa Barbara	16- 7-30	3,883	cleaning out
General Pet., No. 4 More, Goleta, Santa Barbara	15- 4-28	4,757	redrlg. 1,355
Topeka Oil, No. 17 State, Summerland, Santa Barb.	22- 4-26	1,821	rd. sh. drlg.
St. Louis Oil, No. 1 Williamson, Sespe, Ventura	1- 4-20	1,994	will deepen
Section 20 Oil, No. 21, Sespe, Ventura	20- 5-19	2,941	sd. sh. drlg.
English, J. A., No. 1 Lankershim, Hopper Can., Vent.	13- 4-19	2,502	O.S. drlg.
Levesque, G. M., No. 1 Robertson, Simi, Ventura	17- 2-18	2,030	gr. sh. drlg.
Galveston Oil, No. 1 Basola, Bardsdale, Ventura	5- 3-19	3,150	idle
Texas Co., No. 137 Shiells, Shiells Canyon, Ventura	4- 3-19	3,272	redrlg. 900
El Rancho Oil, No. 3 Elkins, Shiells Canyon, Ventura	9- 3-19	3,650	rd. sh. drlg.
Continental Oil, No. 11 Grubb, San Miguelito, Vent.	24- 3-24	6,007	redrlg. 5,791
C. C. M. Oil, No. 7-A Hobson, Padre Canyon, Ventura	15- 3-24	5,743	will deepen
C. C. M. Oil, No. 27-B Hodson, Rincon, Ventura	16- 3-24	4,917	cmtd. 4,848
Tide Water A. O., No. 34 V.L.W., Ventura A., Ventura	24- 3-23	7,520	sd. sh. drlg.
Tide Water A. O., No. 40 V.L.W., Ventura A., Ventura	25- 3-23	10,730	O.S. drlg.
Tide Water A. O., No. 14 McGonigle, Ventura A., Ven.	23- 3-23	9,550	sd. sh. drlg.
Tide Water A. O., No. 15 McGonigle, Ventura A., Ven.	23- 3-23	....	rigged up
Tide Water A. O., No. 84 Lloyd, Ventura A., Ventura	27- 3-23	6,080	sd. sh. drlg.
Tide Water A. O., No. 123 Lloyd, Ventura A., Ventura	23- 3-23	8,635	P.B. 8,430
Tide Water A. O., No. 124 Lloyd, Ventura A., Ventura	23- 3-23	9,060	sd. sh. drlg.
Tide Water A. O., No. 8 Hartman, Ventura A., Vent.	22- 3-23	8,650	recmtd. 8,590
Shell Oil, No. 99 Taylor, Ventura Ave., Ventura	29- 3-23	7,350	O.S. drlg.
Shell Oil, No. 23 Gosnell, Ventura Ave., Ventura	28- 3-23	6,315	cleaning out
Lloyd Corp., No. 2 Dabney, Ventura Ave., Ventura	23- 3-23	9,975	flow 2,250 b.d.
Emigrant Oil, No. 1 Den, Devil's Den, Kern	24-25-18	4,270	sd. sh. drlg.
Belridge Oil, No. 35-38, North Belridge, Kern	35-27-20	7,561	cleaning out
Belridge Oil, No. 28-17, North Belridge, Kern	28-27-20	3,171	sd. sh. drlg.
Belridge Oil, No. 26-25, North Belridge, Kern	26-27-20	8,500	redrlg. 7,470
Tide Water A. O., No. 21, North Belridge, Kern	21-27-20	5,986	sd. sh. drlg.
Richfield Oil, No. 3 Belridge, North Belridge, Kern	22-27-20	7,798	br. sh. drlg.
Tide Water A. O., No. 10-B Williamson, L. Hills, Kern	11-26-20	1,610	will deepen
Standard Oil, No. 2-1 Tulare Farms, Delano, Kern	35-24-23	2,445	sd. sh. drlg.
Crusaders Oil, No. 1 Quinn, Richgrove, Kern	9-25-27	194	sd. sh. drlg.
Dilamar Oil, No. 3 Quinn, Jasmin, Kern	15-25-27	2,902	idle
Sieman, Fred, No. 2 Extension, Edison, Kern	6-30-29	3,196	sd. sh. drlg.
Grizzley Bear Oil, No. 3 Kelley, Round Mount., Kern	6-28-29	1,002	sd. sh. drlg.
Crestmont Oil, No. 6 Staley, Round Mountain, Kern	8-28-29	1,509	gr. sd. drlg.
Brown & Cameron, No. 1 Brown, Kern River, Kern	27-28-28	416	O.S. drlg.
Berryman, F. J., No. 1 Kern, Kern River, Kern	27-28-28	465	O.S. drlg.
D. B. K., No. 5 Kern, Kern River, Kern	34-28-28	386	sd. sh. drlg.
Grogg & Fisher, No. 1 Kern, Kern River, Kern	27-28-28	98	cleaning out
Wright & Eyer, No. 1 Dome, Mount Poso, Kern	28-26-28	1,514	bailing
Texas Co., No. 2 Jewett, Arvin, Kern	16-31-29	155	sd. sh. drlg.
Standard Oil, No. 2 Jewett, Arvin, Kern	16-31-29	6,300	P.B. 6,250
Universal Cons'd., No. 2 Derby, Arvin, Kern	15-31-29	3,996	sd. sh. drlg.
Western Gulf Oil, No. 42-B, KCL, Fruitvale, Kern	14-29-27	2,945	completing
Pacific Southwest Oil, No. 1 Dillon, Fruitvale, Kern	27-29-27	4,068	rig to pump
Getty, George F., Inc., No. 1 Jannsen, Wasco, Kern	7-27-24	5,981	sd. sh. drlg.
Union Oil, No. 1-36, KCL, Shafter, Kern	36-27-24	12,985	wet; abd.
Cal. Expl., No. 1 Dougherty-Salisbury, B'nw'w., Kern	7-29-24	12,898	P.B. 12,732
General Pet., No. 2 Van Ness, Rio Bravo, Kern	2-29-25	11,291	sd. sh. drlg.
Union Oil, No. 8-34, KCL, Rio Bravo, Kern	34-28-25	11,460	flow 450 b.d.
Superior Oil, No. 1 Fink, Rio Bravo, Kern	27-28-25	7,985	sd. sh. drlg.
Standard Oil, No. 1 Ross, Greeley, Kern	20-29-26	8,109	cleaning out
Standard Oil, No. 11-18, KCL, Greeley, Kern	18-29-26	9,050	hd. sh. drlg.
Standard Oil, No. 11-19, KCL, Greeley, Kern	18-29-26	7,842	gr. sh. drlg.
Standard Oil, No. 12-6, KCL, Greeley, Kern	30-29-26	11,841	gr. sh. drlg.
Continental Oil, No. 2-D, KCL, Bellevue, Kern	14-30-26	9,030	sd. sh. drlg.
Shell Oil, No. 78-24-A, KCL, Ten Section, Kern	24-30-25	8,266	O.S. drlg.
Shell Oil, No. 23-28-B, KCL, Canal, Kern	28-30-26	194	sd. sh. drlg.
Shell Oil, No. 25-14-A, KCL, Canal, Kern	14-30-25	6,860	sd. sh. drlg.
Tide Water A. O., No. 35-E, KCL, North Canal, Kern	7-30-25	8,364	recmtd. 8,300
Ohio Oil, No. 12-E, KCL, Canal, Kern	14-30-25	8,330	flow 2,832 b.d.
Ohio Oil, No. 13-E, KCL, Canal, Kern	13-30-25	129	sd. sh. drlg.
Richfield Oil, No. 12-33-A, KCL, Tupman, Kern	33-30-25	7,760	sd. sh. drlg.
Standard Oil, No. 21-1, KCL, Tupman, Kern	19-30-25	9,190	hd. sh. drlg.
Richfield Oil, No. 14-3-B, KCL, Coles Levee, Kern	3-31-25	8,715	sd. sh. drlg.
Tide Water A. O., No. 61, KCL, Coles Levee, Kern	14-31-25	10,010	O.S. drlg.
Standard Oil, No. 20-1, KCL, Coles Levee, Kern	9-31-25	9,216	fish D.P.
Ohio Oil, No. 3-F, KCL, Coles Levee, Kern	11-31-25	5,982	sd. sh. drlg.
Richfield Oil, No. 1-D-B Crampton, Elk Hills, Kern	1-31-25	3,023	pump 95 b.d.
Standard Oil, No. 21-C fee, Midway-Sunset, Kern	15-32-24	3,530	P.B. 3,502
Standard Oil, No. 21-C Fee, Midway-Sunset, Kern	1-32-23	2,892	bailing
Vista Grande Oil, No. 1 Schultz, Midway-Sunset, Kern	36-32-23	3,630	bail water
Van Fleet & Durkee, No. 3 Hoyst, Midway-Sun., Kern	36-32-23	2,510	P.B. 2,320
General Pet., No. 1 B.V.A., Midway-Sunset, Kern	1-32-24	4,540	redrlg. 4,286
National Oil, No. 33 Sunset, Midway-Sunset, Kern	35-32-23	466	sd. sh. drlg.
Par Oil & Gas, No. 1 Hager, Midway-Sunset, Kern	16-31-22	2,559	sd. sh. drlg.
West. Gulf Oil, No. 1 Panhandle, Buena Vista L., Kern	3-32-26	8,340	sd. sh. drlg.
Gates, F. E., No. 2 Laymance, McKittrick, Kern	20-30-22	1,474	rig to pump
Richfield Oil, No. 1 KCL, Wheeler Ridge, Kern	28-11-20	11,004	cmtd. 10,815
Continental Oil, No. 1-F, San Emidio, Kern	5-10-21	4,491	sd. sh. drlg.
Bannow, L. E., No. 1 Irwin, San Emidio, Kern	15-10-23	1,373	sd. sh. drlg.
Petrol Corp., No. 33-5 Reserve, Tejon, Kern	33-11-19	8,946	P.B. 6,855
Central Valley Oil, No. 1 Com., El Prado, Fresno	1-12-20	1,210	reaming
Shell Oil, No. 48-30 Port Costa, Turk, Fresno	30-17-16	9,166	D.P. froze
Superior Oil, No. 1 S.P.L., Turk, Fresno	15-18-16	2,884	sd. sh. drlg.
Texas Co., No. 1 Loescher, Burrell, Fresno	12-17-16	5,250	sd. sh. drlg.
Stuart Oil, No. 1 Hill, West Coalinga, Fresno	12-21-14	1,410	flow O.&W.
Diamond, H. P., No. 7 Hill, West Coalinga, Fresno	35-20-14	145	sd. sh. drlg.
Nagayami & Haranaga, No. 2 Hill, W. Coalinga, Fres.	14-20-14	805	sd. sh. drlg.
Rylatt, Harry, No. 3 Kipling, West Coalinga, Fresno	26-20-14	1,925	sd. sh. drlg.
Bandini Pet., No. 48-18 Webb, N.E. Coalinga, Fresno	18-19-16	6,265	sd. sh. drlg.
Amerada Pet., No. 26-17 S.P.L., N.E. Coal., Fresno	17-19-16	7,196	sd. sh. drlg.
Lytle, R S., Agent, No. 48-7-F, S.E. Coalinga, Fresno	7-20-16	6,160	sd. sh. drlg.
Lytle, R. S., Agent, No. 75-7-F, S.E. Coalinga, Fresno	7-20-16	7,170	hd. sh. drlg.
Lytle, R. S., Agent, No. 5-18-F, S.E. Coalinga, Fresno	18-20-16	6,580	sd. sh. drlg.
Texas Co., No. 1 Exeter fee, S.E. Coalinga, Fresno	6-20-16	7,715	hd. sh. drlg.
Texas Co., No. 2 Exeter fee, S.E. Coalinga, Fresno	6-20-16	5,667	sd. sh. drlg.
Standard Oil, No. 84-13-C fee, S.E. Coalinga, Fresno	13-20-15	5,996	sd. sh. drlg.
Superior Oil, No. 1 P.V.F., S.E. Coalinga, Fresno	22-20-15	7,730	sd. sh. drlg.
Holly Dev., No. 82-12-C, S.E. Coalinga, Fresno	12-20-15	5,682	sd. sh. drlg.
K. N. D. A., No. 4-18-Q, Kettleman North, Kings	18-22-18	8,295	cmtd. 8,293
K. N. D. A., No. 2-20-Q, Kettleman North, Kings	20-22-18	7,070	redrlg. 7,030
K. N. D. A., No. 4-22-Q, Kettleman North, Kings	22-22-18	5,850	sd. sh. drlg.
K. N. D. A., No. 58-22-Q, Kettleman North, Kings	22-22-18	7,605	C.P. 7,232
K. N. D. A., No. 4-26-Q, Kettleman North, Kings	26-22-18	6,880	br. sh. drlg.
Standard Oil, No. 2-19-J, Kettleman North, Fresno	19-21-18	6,504	will deepen
Standard Oil, No. 87-7-Q, Kettleman North, Kings	7-22-18	6,880	sd. sh. drlg.
Standard Oil, No. 52-17-Q, Kettleman North, Kings	17-22-18	7,779	sd. sh. drlg.
Standard Oil, No. 85-17-Q, Kettleman North, Kings	17-22-18	6,580	br. sh. drlg.
Standard Oil, No. 87-17-Q, Kettleman North, Kings	17-22-18	5,315	br. sh. drlg.
Standard Oil, No. 41-21-Q, Kettleman North, Kings	21-22-18	8,190	swabbing
Standard Oil, No. 63-21-Q, Kettleman North, Kings	21-22-18	3,692	sd. sh. drlg.
Standard Oil, No. 72-21-Q, Kettleman North, Kings	21-22-18	7,488	sd. sh. drlg.
Standard Oil, No. 83-21-Q, Kettleman North, Kings	21-22-18	7,785	flow salt wtr.
Epco, No. 1 Cuyama, Creston, San Luis Obispo	27-27-13	5,680	sd. sh. drlg.
Newton, S. M., No. 1 Staffard, Panorama, S. Luis Obis.	18-21-21	2,970	sd. sh. drlg.
Texas Co., No. 1 Arroyo Seco, Greenfield, Monterey	11-19- 5	4,265	dry; abd.
Standard Oil, No. 1 Calpac, Rio Vista, Solano	15- 5- 2	4,495	hd. sd. drlg.
Buttes Oilfields, No. 5 Butte, Sutter Buttes, Sutter	1-15- 1	3,194	sd. sh. drlg.
Stone, E. B., No. 1 Panoche, Dos Palos, Merced	8-12-11	2,050	dry; abd.

IMPORTANT WELLS AND SOUTHERN CALIFORNIA WILDCATS

Company, well, location and county—	S.T.R.	Depth	Status
D. & J. Oil, No. 1 Lomita, Torrance, Los Angeles	23- 4-14	5,125	rig to pump
Elliott, D. W., No. 8 Kettler, Torrance, Los Angeles	23- 4-14	5,186	will redrl.
O'Donnell, J. E., No. 72 Lomita, Torrance, Los Ang.	30- 4-14	3,982	sd. sh. drlg.
Lebow-McNee Oil, No. 3-B Kettler, Torrance, Los A.	23- 4-14	2,596	sd. sh. drlg.
C. C. M. Oil, No. 12 Kettler, Torrance, Los Angeles	23- 4-14	4,982	sd. sh. drlg.

KEY TO ABBREVIATIONS USED IN DRILLING REPORTS

Abd., abandoned.
Acd., acidized.
B.O., barrels of oil.
B.P.D., barrels per day.
B.D., barrels daily.
B.P., back pressure.
B.R., building rig.
B. ck., bottom choke.
Br. sh., brown shale.
B.S., basic sediment.
C.&P., cellar and pits.
Cd. or Crd. cored.
C.D., correct depth.
Cg., coring.
Cmtd., cemented.
C.O., cleaning out.
Comp., completed.
Compr., compressor.
C.P., casing pressure, also cement through perforations.
Csg., casing.
D.D., drilling (or drilled) deeper.
Drlg. or Drg., drilling.
Drk. or Dk., derrick.
D.S., drill stem.
D.S.T., drill stem test.
D.&A., dry and abandoned.
Fsg., fishing.
Gbo., gumbo.
G.I., gas injection.
Gr., gravity.
Gr. sd., gray sand.
Grn. sh., green shale.
Hd. sd., hard sand.
H.F.W., hole full of water.
I.P., initial production.
L., lime.
L.D.D., later drilled deeper.
Lnr., liner.
Loc., location.
M.I.M., moving in material.
M.I.R., moving in rig.
M.I.R.T., moving in rotary tools.
M.O.T., milling on tools.
O.I.H., oil in hole.
O.S., oil sand.
O.T.D., old total depth.
O.W.D.D., owell drilling deeper.
O.W.P.B., old well plugging back.
P.B., plugging back.
P.B.P., pulling or pulled big pipe.
P.L., pipe line.
P.L.O., pipe line oil.
Pmpg., pumping.
P.O.P., putting on pump.
P.P., pulled pipe.
Rd. sd., red sand.
Rd. sh., red shale.
Recmt., recemented.
Recvd., recovered.
Rmg., reaming.
Redrlg., redrilling.
Rng.,) running.
R.O.G., rig on ground.
R.P., rock pressure.
R.U., rigging up.
R.U.R., rigging up rotary.
R.U.S.T., rigging up standard tools.
R.&T., rods and tubing.
S. or Sd., sand.
S.D., shut down.
Sdy. sh., sandy shale.
Sdtrk. or St., sidetracking.
S.D.P.L., shut down for pipe line.
S.D.O., or S.D.W.O., shut down awaiting orders.
S.G., show gas.
Sh.&L., shale and lime.
S.I., shut in.
S.I.P., shut in, prorated.
S.I.M., steel line measurement.
S.O., show oil.
S.O.G.&W., show of oil, gas and water.
Spdg. or Spd., spudding.
S.R., straightreaming.
Stdg., standardizing (also standing)
S.W., salt water.
Swbg., swabbing.
T.A., temporarily abandoned.
Tbg., tubing.
T.D., total depth.
T. ck., top choke.
T.P., tubing pressure.
Tr., tract.
Tstd., tested.
U.R., underreaming.
W.I.H., water in hole.
W.O., workover.
W.O.C., or W.O.C.S., waiting on cement to set.
W.O.O., waiting for orders.
W.P., working pressure.
W.S.O., water shutoff.
W.S.S.O.K., water shutoff O.K.
W.S.R. or W.O.S.R., awaiting standard rig.
Wtr., water.

Cinco Oil, No. 1 Lomita, Torrance, Los Angeles ..	23-	4-14	3,878	will deepen
General Pet., No. 7 Poggi, Harbor City, Los Angeles	23-	4-14	3,800	pump water
Texas Co., No. 6 Oakley, Harbor City, Los Angeles..	30-	4-13	5,241	swabbing
Shell Oil, No. 98 Reyes, Dominguez, Los Angeles	33-	3-13	7,850	reaming
Union Oil, No. 32 Rosecrans, Rosecrans, Los Angeles	19-	3-13	6,160	sd. sh. drlg.
Universal Cons'd., No. 17 Trust, Rosecrans, Los Ang.	18-	3-13	6,381	sd. sh. drlg.
Royalty Ser., No. 4 Gordon, Rosecrans, Los Angeles	19-	3-13	7,841	O.S. drlg.
Bankline Oil, No. 1 Kirby, Rosecrans, Los Angeles	19-	3-13	7,723	cleaning out
Averill, G. G., No. 1 Howard, Rosecrans, Los Ang.	20-	3-13	7,645	will recmt.
Wilshire Oil, No. 1 Leitch, Rosecrans, Los Angeles	19-	3-13	7,870	flow 75 b.d.
Trans-Western Oil, No. 1 Beloil, Potrero, Los Ang.	28-	2-14	5,450	will deepen
Empire Oil, No. 1 Samarkand, Playa Del Rey, L. A.	34-	2-15	6,325	swabbing
Tide Water A. O., No. 11 Porter, Aliso Canyon, L. A.	27-	3-16	2,687	hd. sd. drlg.
Union Oil, No. 1-27 Orcutt ,Aliso Canyon, Los Ang.	27-	3-16	5,980	idle
O'Donnell, J. E., No. 1 Hammond, Newhall, L. A.	8-	3-16	5,065	sd. sh. drlg.
Barnsdall Oil, No. 6 R.S.F., Newhall, Los Angeles ..	27-	4-17	2,751	sd. sh. drlg.
Barnsdall Oil, No. 7 R.S.F., Newhall, Los Angeles ..	27-	4-17	2,797	sd. sh. drlg.
General Pet., No. 7 S.P., Wilmington, Los Angeles	2-	5-13	2,500	sd. sh. drlg.
Bond Pet., No. 3 Mutual, Wilmington, Los Angeles	35-	4-13	2,932	sd. sh. drlg.
Gremac Oil, No. 1 Harbor, Wilmington, Los Angeles	4-	5-13	3,678	sd. sh. drlg.
Long Beach Dev., No. 10-X Harbor, Wilmington, L. A.	2-	5-13	..	bldg. rig.
Long Beach Dev., No. 2-Y Harbor, Wilmington, L. A.	2-	5-13	3,853	flow 216 b.d.
Long Beach Dev., No. 3-Y Harbor, Wilmington, L. A.	2-	5-13	4,027	P.B. 3,895
Long Beach Dev., No. 4-Y Harbor, Wilmington, L. A.	2-	5-13	4,000	sd. sh. drlg.
Long Beach Dev., No. 5-Y Harbor, Wilmington, L. A.	2-	5-13	3,989	sd. sh. drlg.
Long Beach Dev., No. 6-Y Harbor, Wilmington, L. A.	2-	5-13	3,975	sd. sh. drlg.
Macson Oil, No. 3-55-G Harbor, Wilmington, L. A.	32-	4-13	3,670	sd. sh. drlg.
Oakes & Combs, No. 5-D Harbor, Wilmington, L. A.	3-	5-13	3,925	redrlg. 3,690
Pet. Midway, No. 1-G Kupfer, Wilmington, L. A.,	35-	4-13	3,468	cleaning out
Richfield Oil, No. 29-P.D., Wilmington, Los Angeles	2-	5-13	2,592	sd. sh. drlg.
Signal O. & G., No. 3-P.D., Wilmington, Los Angeles	3-	5-13	3,040	sd. sh. drlg.
Signal O. & G., Uo. 4-P.D., Wilmington, Los Angeles	3-	5-13	2,592	sd. sh. drlg.
Signal O. & G., No. 1-S.P., Wilmington, Los Angeles	2-	5-13	4,260	sd. sh. drlg.
Sunray Oil, No. 1-A Santa Fe, Wilmington, Los Ang.	33-	4-13	5,717	flow 200 b.d.
Union Pacific R. R., No. 109, Wilmington, Los Ang.	3-	5-13	3,936	sd. sh. drlg.
Union Pacific R. R., No. 110, Wilmington, Los Ang.	34-	4-13	3,552	O.S. drlg.
Union Pacific R. R., No. 16-E, Wilmington, Los Ang.	3-	5-13	3,995	P.B. 3,978
Ridge Oil, No. 1 Club, Montebello, Los Angeles ..	3-	2-12	7,270	sd. sh. drlg.
Kern Oil, No. 25 Monterey, Montebello, Los Angeles	2-	2-12	6,471	sd. sh. drlg.
Kern Oil, No. 2 Eggleston, Montebello, Los Angeles	2-	2-12	7,145	recmtd. 5,650
Kern Oil, No. 2 Taylor, Montebello, Los Angeles ..	2-	2-12	7,135	P.B. 6,302
Standard Oil, No. 4 Harvey, Montebello, Los Angeles	2-	2-12	6,998	P.B. 6,901
Standard Oil, No. 2 Braun, Montebello, Los Angeles	2-	2-12	7,653	P.B. 7,545
Standard Oil, No. 3 Braun, Montebello, Los Angeles	2-	2-12	7,610	sd. sh. drlg.
Standard Oil, No. 6 Whitehead, Montebello, Los Ang.	3-	2-12	7,655	O.S. drlg.
Standard Oil, No. 7 Whitehead, Montebello, Los Ang.	3-	2-12	2,296	sd. sh. drlg.
Standard Oil, No. 1 Kaufman, Montebello, Los Ang.	2-	2-12	6,465	will deepen
Union Oil, No. 4 Wilcox, Montebello, Los Angeles ..	2-	2-12	3,970	sd. sh. drlg.
Union Oil, No. 32 La Merced, Montebello, Los Ang.	2-	2-12	6,395	sd. sh. drlg.
Union Oil, No. 2 Howard & Smith, Montebello, L. A.	2-	2-12	7,602	O.S. drlg.
Union Oil, No. 5 Howard & Smith, Montebello, L. A.	2-	2-12	6,411	redrlg. 4,884
Union Oil, No. 2 Calkins, Montebello, Los Angeles..	2-	2-12	5,378	sd. sh. drlg.
Union Oil, No. 5 Paul Howard, Montebello, Los Ang.	2-	2-12	6,850	sd. sh. drlg.
Stanley Oil, No. 1 Montebello, Montebello, Los Ang.	2-	2-12	7,621	O.S. drlg.
Bev. Mont. Oil, No. 1 Corbett, Montebello, Los Ang.	11-	2-12	5,945	sd. sh. drlg.
Hathaway Oil, No. 1 Dore, Montebello, Los Angeles	11-	2-12	7,622	O.S. drlg.
Mont. Reservoir Oil, No. 2 Water, Montebello, L. A.	2-	2-12	7,612	flow 850 b.d.
McVicar & Rood, No. 2 Manz, Montebello, Los Ang.	2-	2-12	6,412	cleaning out
Pongratz Pet., No. 1 Newmark, Montebello, Los A.	3-	2-12	7,641	fish D.P.
Pongratz Pet., No. 1 Martin, Montebello, Los Angeles	2-	2-12	6,700	will deepen
McKeon, John, No. 1 Cowan, Montebello, Los Angeles	1-	2-12	2,997	sd. sh. drlg.
La Merced Drlg., No. 1 Drake, Montebello, Los Ang.	2-	2-12	7,630	flow 1,750 b.d.
V-8 Oil, No. 1 M.B., Montebello, Los Angeles	2-	2-12	7,633	flow 1,310 b.d.
Vulcan Oil, No. 1 Nash, Montebello, Los Angeles ..	2-	2-12	7,648	O.S. drlg.
Star Pet., No. 1 Banks, Montebello, Los Angeles ..	2-	2-12	3,989	sd. sh. drlg.
Caminol, No. 1-15 Cowan, Montebello, Los Angeles..	2-	2-12	3,575	sd. sh. drlg.
Wood-Callahan Oil, No. 1 Bartlett, Montebello, L. A.	2-	2-12	2,154	sd. sh. drlg.
Bush Oil, No. 1 Alauzet, Montebello, Los Angeles ..	3-	2-12	4,181	sd. sh. drlg.
Herley-Kelly, No. 2 Masser, Montebello, Los Angeles	2-	2-12	7,170	sd. sh. drlg.
Texas Co., No. 18 Baldwin, East Montebello, Los A.	6-	2-11	7,490	sd. sh. drlg.
Colorado Oil, No. 19 Granger, Whittier, Los Angeles	22-	2-11	4,218	sd. sh. drlg.
Taylor Prod., No. 1 Gregg, Citrus Grove, Los Ang.	17-	2-11	5,015	sd. sh. drlg.
Kelso, F. W., No. 1 Brea, Puente Hills, Los Angeles	13-	2-10	1,880	sd. sh. drlg.
Perry & Associates, No. 1 Pool, Long Beach, Los Ang.	29-	4-12	7,394	sd. sh. drlg.
Union Oil, No. 18 Y.L.G., Richfield, Los Angeles ..	34-	3- 9	2,171	sd. sh. drlg.
Traders Oil, No. 1 Wagner, Richfield, Los Angeles ..	22-	3- 9	3,796	sd. sh. drlg.
Tide Water A. O., No. 54 Anaheim, E. Coyote, Orange	24-	3-10	3,634	redrlg. 2,798
Severns Drlg., No. 4 McNally, West Coyote, Orange	24-	3-11	5,591	sd. sh. drlg.
Southwest Expl., No. 16 State, Huntington B., Orange	10-	6-11	4,529	cleaning out
Southwest Expl., No. 17 State, Huntington B., Orange	10-	6-11	2,198	sd. sh. drlg.
Southwest Expl., No. 19 State, Huntington B., Orange	10-	6-11	4,325	O.S. drlg.
Duchess Oil, No. 4 Farnsworth, Hunting. B., Orange	34-	5-11	3,600	rigged up
Carbon Can., No. 1 Schuch, Carbon Can., S. Barnard.	36-	2- 9	65	sd. sh. drlg

OKLAHOMA

Week Ending June 17

NORTHERN OKLAHOMA

Atoka County

Giblett No. 1 Rich, SE SE SW Sec. 2-1-12. S.D. 728 ft.

Caddo County

Sinclair Prairie Oil Co. No. 1 German. SW NW NW Sec. 1-16-13w. T.D. 615 ft.; set surf. pipe.

Cleveland County

Hall & Briscoe No. 1 Mantooth, NW NW NW Sec. 24-6-1e. Drlg. 1,050 ft.
Nels Burton No. 1 Boggs, NE NE SE Sec. 16-9-2w. T.D. 7,633 ft.; Schlumb.
Nels-Burrton No. 1 Hirsch, NW NW NE Sec. 17-9-2w. O.W.P.B.; O.T.D. 7,692 ft.; T.D. 7,695 ft.

Comanche County

Mid Night Oil No. 1 Howe, NW NW NE Sec. 30-2-13w. O.W.D.D.; O.T.D. 703 ft.; drlg. 820 ft.

Ellis County

Enterprize Drlg. Co. No. 1 Wahl, SE NW NW Sec. 1-19-25w. Sd. 660-65 ft.; T.D. 730 ft.; S.D.O.

Garfield County

Kerlyn Oil Co. No. 1 Hein, NW NW NW Sec. 36-22-4w. T.D. 5,042 ft.; S. D.O.

Grady County

J. B. Nichlos No. 1 Bushnell, NW NE SE Sec. 7-5-8w. C.&P.

Grant County

Carter Oil No. 1 Staggers, C W½ SE NW Sec. 4-25-3w. Cg. 5,327 ft.
Smythe & O'Mara No. 1 State, C SE SW Sec. 16-25-4w. Drlg. 5,375 ft.

Harmon County

Russe Drlg. No. 1 Abernathey, C SW SW Sec. 12-2-26w (3,000-ft. test). Drlg. below 2,700 ft.

Hughes County

Carter Oil No. 1 Hamilton, C W½ NE SW Sec. 33-4-9. T.D. 4,236 ft., S.D.
Continental Oil No. 1 Hudson, SE SE SE Sec. 8-4-9. Drlg. 5,177 ft.

Harper County

Sinclair Prairie No. 1 George, SW SW SW Sec. 5-27-23w. T.D. 5,725 ft.; shot off pipe at 5,200 ft.; C.O.

Jackson County

English & Morgan No. 1 Lee, NW NW SE Sec. 36-2-19w. S.G. 1,360-63 ft.; T.D. 1,603 ft.; P.B. 1,243 ft.; S.D.O.

Jefferson County

H. M. Weir No. 1 Carmichael, NE NE SW Sec. 23-7s-7w. Drlg. 2,100 ft.

Kingfisher County

K. A. Ellison No. 1 Baker, NE NE SE Sec. 20-19-5w. T.D. 7,323 ft.; S.D.O.
Ace Gutowsky No. 1 Lankford, NE NE SE Sec. 34-17-6w. Miss. 7,014 ft.; Woodford 7,531 ft.; Msnr. 7,562 ft.; Wlx. 8,-105 ft.; 2nd Wlx. 8,275 ft.; T.D. 8,330 ft.; S.D.O.

Kiowa County

C. M. Beckett, NE NE NE Sec. 25-7-18w. Mch.
Bollen-Dillard & Roberts No. 1 Holcomb, NE NE SW Sec. 25-7-19w. Loc.
C. J. Hagerling No. 1 Kimray, SW SW NW Sec. 36-5-18w. T.D. 997 ft.; rng. csg.
Russell S. Tarr No. 1 Kelsay, SW SW NW Sec. 20-7-17w. Pay 1,050-51½ ft.; F. 70 B.O.P.H. by hds.; est. 1,500 to 2,000 B.O.P.D; S.I.

Lincoln County

Black Gold No. 1 Connalay, NE NE NE Sec. 28-14-6. Cg. 3,123 ft.
Cooper Drlg. Co. No. 1 Blaney, SW SW NW Sec. 13-14-5. Drlg. 2,465 ft.
Cooper Drlg. No. 1 Johnson, NE NE NW Sec. 32-15-5. Prue sd. 3,515-69 ft.; S.D.
Fain Drlg. Co. No. 1 Wertman, SW SW SW Sec. 12-15-4. T.D. 4,701 ft.; S.D.
Mason & Nicholls No. 1 Lindsay, SW SE SE Sec. 26-12-3. Drlg. 4,692 ft.
W. A. Villines No. 1 Marshall, NW NE NE Sec. 28-15-4. T.D. 5,080 ft.; S.D.

Pawnee County

Ed Kelly No. 1 Hill, SW SW SE Sec. 1-21-5. T.D. 2,845 ft.; whipstock 2,840 ft.; drlg. by tools.

Pittsburgh County

Phillips Pet. Co. No. 1 Hubacker, C NW NE Sec. 11-7-15. 1st Wlx. 7,514-24 ft.; drlg. 7,693 ft.

Pontotoc County

L. Walker No. 1 King, SW SE NW Sec. 5-4-7. T.D. 1,115 ft.; S.D.

Pottawatomie County

Alma Oil Co. No. 1 Johnson, SW NW SW Sec. 19-6-5. 2nd Wlx. 4,025 ft.; T. D. 4,062 ft.; P.B. 3,019 ft.; perf. 2,890-2,900 ft. in Earlsboro; F. 200 B.O.P.D.
F. W. Cooper No. 1 Strawn, SE SE SW Sec. 32-8-5. T.D. 4,411 ft.; S.D.
I.T.I.O. No. 1 Lambert, C E½ NW NE Sec. 6-5-2. Drlg. 5,385 ft.

Sequoyah County

Thompson Bros. No. 1 Ruby, NW NW NE Sec. 30-12-22. T.D. 1,510 ft.; S.D.

Seminole County

Culberson & Shepherd No. 1 Burton et al, SW NW SE Sec. 3-5-5. Cg. 2,084 ft.
Flynn et al No. 1 Work, NE SE SE Sec. 19-8-7. Wlx. 4,276-92 ft.; set pipe.

Washita County

Continental Oil Co. No. 1 Proctor, C NW Sec. 28-10-20w. Drlg. 12,537 ft.
John Koberg No. 1-A Harms, C NW NE Sec. 6-10-16w. Drlg. 5,710 ft.
L. B. McWhirter No. 1 fee, NW SW SW Sec. 34-8-19w. Drlg. 2,245 ft.

SOUTHERN OKLAHOMA

Carter County

Pure Oil Co. No. 1 Noble, NE SE Sec. 35-3s-1e. T.D. 8,500 ft.; P.B. 6,530 ft.; tstd. wtr. at 6,319 ft.; to test Hntn. L.

Choctaw County

Clyde Ross et al No. 1 Hardy, SE SE NW Sec. 21-7s-15. T.D. 1,480 ft.; U.R. 8¼-in. csg.

Jefferson County

Bridwell Oil Co. No. 1-J Seay, SE NE SW Sec. 29-6s-5w. O.W.D.D.; T.D. 1,-905 ft.; D.P. stk.

Marshall County

Hughes et al No. 1 Vittitto, C NE SE Sec. 11-5s-4e. O.W.D.D.; O.T.D. 7,100 ft.; T.D. 7,110 ft.; S.D.

Tillman County

Oil Inv. No. 2 Hammell, NE NW NW Sec. 6-5s-15w. O.W.D.D.; O.T.D. 2,829 ft.; T.D. 3,353 ft.; S.D.

KANSAS

Week Ending June 17 (Descriptions are East unless marked otherwise)

Atchison County

Earl Wakefield et al No. 1 Natl. Life Ins., C NW NE Sec. 17-6-20. Rig.

Barton County

Armer and Vernon O. & G. Co. No. 1 Hoffman, NW NW SW Sec. 18-16-11w. Drlg. 2,120 ft.
B. B. & M. Drlg. Co. No. 1 Eafeld, NW NW SE Sec. 28-16-11w. Drlg. 1,430 ft.
Broswood Oil and Earl Wakefield No. 1 Rule, NW SW NE Sec. 2-16-13w. Drlg. 900 ft.
J. A. Brouk et al No. 1 Pospishel, NE NE SE Sec. 20-17-15w. Drlg. 2,097 ft.
R. E. Day et al No. 1 Feltes, SE SE NE Sec. 14-16-12w. O.W.D.D. O.T.D. 1,875 ft.; drlg. 3,260 ft.

Butler County

Carey & Jennings No. 1 Kelly, C SW Sec. 20-27-4. T.D. 1,790 ft.; rng. csg.
Elbar Corp. No. 1 Martin, NE SE SE Sec. 34-26-7. Drlg. 1,985 ft.
G. S. Lucas and White Star Oil No. 1-A Lucas, NE NW NW Sec. 14-28-6. Fag. 775 ft.

Comanche County

Kerr-Lynn et al No. 1 McMoran, C SE NW Sec. 25-34-16w. Drlg. 796 ft.

Cowley County

Cities Service No. 1 Pope, SE NE SW Sec. 21-31-3. Drlg. 3,118 ft.
Hartman & Blair No. 1-A Brown, SE SE NW Sec. 33-30-4e. Drlg. 2,185 ft.
Western Kans. O. & R. Co. No. 1 Gregory, SE SE NW Sec. 2-34-6. Rig.

Dickinson County

Franks et al No. 1 Huffman, NW NW SW Sec. 11-13-1. Drlg. 2,750 ft.

Douglas County

Three Star Oil Co. No. 1 Griffith, C NW SE Sec. 4-14-8e. M.I.M.

Ellis County

Central Pet. No. 4 Hadley, NE NE SE Sec. 12-11-18w. Lans. 3,054 ft.; T.D. 3,162 ft.; drld. cmt. to 3,155 ft.; shot at 3,068-3,105 ft.; acd.; P. 25 B.O. and 25 B.W.P.H.; drlg. 3,155 ft.
K. F. Nelson No. 1 Novak, NW NW NE Sec. 36-13-16w. Drlg. 2,675 ft.

Ellsworth County

I. W. Murfin No. 1 Loula, NW NW SE Sec. 28-16-10w. Drlg. 2,075 ft.

Geary County

Scheu & Tague No. 1 Aye, NW SW NW Sec. 10-12-8. Drlg. 1,902 ft.

Harvey County

Western Kans. O. & R. Co. et al No. 1 Mooreshead, SW SW SW Sec. 24-23-1w. Rot. rig.

Gray County

Champlin Ref. No. 1 Dirks, C NE SW Sec. 34-28-29w. Drlg. 4,070 ft.

Greenwood County

Austin Reed et al No. 1 Sowder, SE SE NW Sec. 31-25-13. Drlg. 1,195 ft.

Haskell County

United Prod. No. 1 Illinois, NW NW SE Sec. 31-29-34w. Gas 2,614 ft.; drlg. 2,-616 ft.

Kiowa County

Sinclair Prairie No. 1 Price, NW NW SW Sec. 22-28-20w. Drlg. 4,775 ft.

Marion County

Tide Water Asso. and Ward McGinnis No. 1 Junghanns, SE SE SE Sec. 23-18-5. Lans. 1,576 ft.; drlg. 1,845 ft.

Miami County

Dave Judd No. 1 Waite, CNL SW SE Sec. 4-15-25. S.D. 732 ft.

Osage County

J. M. Edwards No. 1 Detrick (O.W.D.D.), C NW SE Sec. 21-14-15. O.T.D. 1,200 ft.; drlg. 1,485 ft.

Ottawa County

Babcock Oil No. 1 Copeman, NW NW Sec. 18-10-2w. Arb. 3,744 ft.; gran. wash 4,008 ft.; T.D. 4,135 ft.; D.&A.

Phillips County

Blue Stem Oil Co. No. 1 Donaldson, SE NE NE Sec. 25-5-18w. Lans. 3,080 ft perf. 3,120 ft., T.D.; 1,500 ft. O.I.H.; no test.

Rice County

Bradley Oil No. 1 Ruhl, C E½ NE NW Sec. 24-19-10w. Sur. hole.
Bridgeport Mch. No. 1 Pierce, CSL N½ NE Sec. 29-20-7w. Miss. 3,305-07 ft., T.D.; R.U.S.T.
Carey et al No. 1 Link, SW NW SE Sec. 19-19-9w. Rot. rig.
Central Pet. No. 1 Dippel, CNL NE SE Sec. 27-19-10w. T.D. 3,315 ft.
Continental Oil No. 1-B Hamilton, SW SW NE Sec. 19-18-7w. T.D. 4,180 ft.; comp. as wtr. disposal well.
Finston & Co. et al No. 1 Hathaway, CNL NW SW Sec. 27-19-10w. Drlg 2,330 ft.
Fred Jones No. 1 Habiger, NE NE SW Sec. 9-18-10w. Drlg. 1,745 ft.
Frank Hollow et al No. 1 Guidner, SE SE SE Sec. 5-18-9w. M.I.M.
Lario O. & G. Co. No. 1 Link, SE SE SW Sec. 17-19-9w. Drlg. 1,247 ft.

Lauck & Moncrief No. 1 Schoonover, SW SW SE Sec. 20-18-9w. Sur. hole.
Nelson Drlg. Co. No. 1 Hodge, NW NW NE Sec. 25-20-6w. Lans. 2,890 ft.; Miss. 3,301-03 ft., T.D.; S.O.; R.U.S.T.
Phillips Pet. Co. No. 1 Hemmer, NW NW SE Sec. 16-18-10w. Lans. 2,933 ft.; Arb. 3,275 ft.; T.D. 3,283 ft.; no shows; D.&A.
Phoenix Drlg. No. 1 Linville, SW SW SE Sec. 4-20-10w. R.U.
E. J. Shaffer No. 1 Bauer, C W½ SW SW Sec. 23-21-7w. Cellar.

Rooks County

Broadview Oil No. 1 Baxter, NE SW SW Sec. 35-8-16w. Drlg. 555 ft.
Web-Son Oil et al No. 1 Blair, SE NE NW Sec. 34-10-19w. Simp. 3,667 ft.; Arb. 3,693-3,707 ft., T.D.; R.U.S.T.

Russell County

Braden & McClure No. 1 Biehm, SW SW NW Sec. 11-14-14w. Fsg. 2,160 ft.
Cities Service No. 1 Dutt, NW NW SE Sec. 18-13-14w. Pay 3,130-33 ft., T.D.; P. 80 B.O. in 8 hrs.
Phillips Pet. No. 1 Maier, SW SW NE Sec. 15-15-14w. W.O.C. 599 ft.
A. H. Witt No. 1 Speere, SW SW NE Sec. 7-14-14w. Rlg.

Sherman County

Goodland Ind. Gas Co. No. 1 Wilcoxson, SE NW Sec. 27-8s-39w. Drlg. 806 ft.

Stafford County

Stanolind O. & G. No. 2 Sittner, NE SW SW Sec. 3-22-12w. R.U.R.
Virginia Drlg. No. 1 Tieperman, NE NE SW Sec. 29-21-12w. Cellar.

Sumner County

Burke-Greis No. 1 Seyfert, SE SE SE Sec. 18-34-2. Miss. 3,782 ft.; Simp. 3,860 ft.; Arb. 3,938 ft.; T.D. 3,960 ft.
E. W. Shawver No. 1-C Hitchcock, C N¼ NE NE Sec. 16-30-1w. Miss. 3,557-60 ft., T.D.; R.U.S.T.

Woodson County

Roby et al No. 1 Meairs, SW SW NW Sec. 21-25-14. Bvlle. 1,367-70 ft.; S.O.; S.D.

MISSOURI

Andrew County

Birkett et al No. 1 Gee, NW NW SE Sec. 28-60n-35w. Drlg. 495 ft.
Jones & Hyde No. 1 Holt, SE NW NE Sec. 34-60-35w. T.D. 150 ft.; fsg.

Bollinger County

Delmund Oil No. 1 Cooper, SE SE SE Sec. 14-29-9e. Drlg. 1,400 ft.

Butler County

Coastal Pet. et al No. 1 Pierson, SW NE NW Sec. 27-22-6e. R.U.R.

Clay County

Eastern Drlg. Co. No. 1 Williams, NW NW NE Sec. 28-53-32w. Drlg. 440 ft.
Frank Hopper et al No. 1 Black, NW NW NW Sec. 36-52-32w. Arb. 1,657 ft.; H.F.W. 1,670-80 ft., T.D.; S.D.O.

Clinton County

C. E. King et al No. 1 Willis, NW NW NW Sec. 13-55n-32w. Miss. 895 ft.; drlg. 1,226 ft.

DeKalb County

Geo. W. Moore No. 1 McQuarter, NE SW SW Sec. 11-57n-31w. Drlg. 1,050 ft.

Hickory County

J. W. Sims No. 1 Wilson, NW NW NW Sec. 3-37n-21w. Drlg. 1,624 ft.; S.S.O.

Holt County

Brin & Nathan No. 1 Decker, C NW NW Sec. 1-61-38w. M.I. mch.
Brin & Nathan No. 1 Garrett, C NE NE Sec. 1-61n-38w. Loc.
Markham et al No. 1 Gaffney, SW SE SW Sec. 24-63-40w. R.R.
J. H. Everitt et al No. 1 Spring, SW SW SE Sec. 30-62-38w. T.D. 2,601 ft.; S.D. for D.P.

Jackson County

Joe G. Kelly No. 1 fee, NE SW NE Sec. 26-51-34w. Drlg. 665 ft.; S.S.O.&G.
Missouri Valley G. & O. Co. No. 1 Young, C SW SE Sec. 30-51-34w. Drlg. 120 ft.

Mercer County

Geo. W. Moore No. 1 Castell, NE NE NE Sec. 32-65-24w. Loc.

Platte County

Berry Bros. No. 1 Rule, C SW SW Sec. 20-53-33w. Bvlle. 812-914 ft.; drlg. 923 ft.

Putnam County

E. F. Slater et al No. 1 Sayer, NE NW SE Sec. 14-65-18w. Drlg. 1,220 ft.

Schuyler County

T. E. Baldwin No. 1 May Johnson, NW NE NE Sec. 21-65-15w. R.U. mch.

Shelby County

Chas. Delfeld No. 1 Turner, C NW NW Sec. 27-59n-9w (wildcat). S.D. 215 ft.

Sullivan County

H. V. Elwell No. 1 Taylor, CNL S½ S½ Sec. 12-62-21w. Rlg.

NEBRASKA

Cass County

Golden Rod Oil Co. No. 1 Sparer, SE SE SE Sec. 8-11-13e. Drlg. 600 ft.

Hitchcock County

C. L. Price No. 1 Carter, SE NE SW Sec. 35-2n-32w. Lans. 3,976 ft.; S.D. 4,000 ft.; S.O.

Scotts Bluff County

J. A. Fairy Pet. Corp. No. 1 McCully, C SE SE Sec. 35-23n-58w. T.D. 1,505 ft.; U.R. 6-in. csg.
Albert Wood No. 1 McHenry, SE NE NE Sec. 33-23n-57w. S.D. 605 ft.

ARIZONA

Maricopa County

Sam F. Reaves No. 1 Fuqua, NW NW NE Sec. 34-1n-4w. Drlg. below 1,500 ft.; S.G. at 1,110 ft.
Peoples G. & O. Co. No. 1 Gardner, SE Sec. 2-1n-3e. Rlg.

Cochise County

Funk Dev. Co. No. 1 fee, SE NE Sec 27-13s-30e. Cg. 6,581 ft. in volcanic agglomerate and tuff.

Apache County

Rincon Drlg. Synd. No. 1 State, N½ NW NE Sec. 28-13n-27e. Drlg. 300 ft.

Pima County

R. W. Schenck No. 1 Boyce, Sec. 22-19s-17e. Drlg. 400 ft.; (no later report).

Yavapai County

Ari-Copa Drlg. & Mining Co. No. 1 Puntenney, SW¼ Sec. 27-18n-2w. Drlg. 118 ft.
Clina Valley Oil Dev. Co. No. 1 State, Sec. 20-18n-2w. No report.

Little River County

C. & M. Drlg. Co. No. 1 Strawn, SW cor. SE Sec. 20-10-32. Cd. 1,270-80 ft.; sh.& wtr. sd.; reported S.O. 1,365-70 ft.; 1,542-64 ft. sd. and 1,564-74 ft. sdy. L.; cor. T.D. 1,598 ft.; set 7-in. csg. 1,590 ft. (cor.); T.D. 1,598 ft.; S.D.; W.O. D.S.

Lonoke County

Cabot Drlg. Club, Inc., No. 1 Benson townsite, Sec. 18-4n-9w. Reported S.O. 1,400-50 ft.; hole clean; ran survey to 2,573 ft.; P.B. 1,470 ft.; set 4⅞-in. csg. 1,390 ft.; T.D. 1,470 ft.; W.O.
J. F. Russell No. 1 J. T. Gunter, 440 ft. N, 577 ft. W. SE cor. Sec. 17-5n-10w. S.D. 2,009 ft.

Miller County

W. C. Feazel No. 1 Westbrook, C SW SW Sec. 1-20-28. Drlg. 50 ft.
Vacarro & Waterman No. 1 Westbrook, C SW SW Sec. 1-20-28. Drlg. sh.&L. 5,320 ft.
J. K. Wadley et al No. 1 Jacobs Est., 330 ft. NW cor. NE SE Sec. 33-18-26. Cd. 3,250-3,303 ft.; no show.; drlg. 3,305 ft.

Ouachita County

J. E. Crosbie, Inc., No. 2 F. A. Laney, Sec. 36-15-16. Stk. 5 4/4-in. 2,777 ft.; set 966 ft. at 2,777 ft.; W.O.C.; T.D. 2,832 ft.; perf. 2,678-82 ft.; tstd. est. 2,000 ft. S.W.; P.B. 2,550 ft.; drld. out to 2,626 ft.; reperf. csg. 2,570-82 ft.; S.W.; reperf. csg. 2,586-96 ft.; pmpg.; no ga.
Phillips Pet. Co. No. 1 J. D. Reynolds, 330 ft. SE cor. SE NW Sec. 27-15-15. O.W.W.O.; O.T.D. 4,926 ft.; comp. as disc. well, Snow Hill field; perf. csg. 2,732-35½ ft., 2,728-31½ ft., 2,744-47½ ft., and 2,756-60 ft.; est. 2,300 ft. F.I. H., 1% oil; P.B. 2,770 ft.; set cmt. retainer 2,719 ft.; sqzd.; S.D.; W.O. 2,746 ft.

Saline County

A. W. Givens No. 1 Williams, 375 ft. S, 420 ft. E, NW cor. NE NE Sec. 18-3s-15w. R.U.&S.D. 104 ft.

Sevier County

R. A. McArthur No. 1 Bell Est., SE cor. SE SW Sec. 29-9s-32w. S.D. 20 ft.

Union County—Schuler

E. M. Jones No. 1-C Murphy Ld. Co., Sec. 24-18-18. Cd. Jones sd. 7,560 ft.; T.D. 7,640 ft.; rng. csg.
Lion Oil Ref. Co. No. 1 S. Bessie, C S½ Lot 5, NW Sec. 7-18-7. 10¾-in. csg. 1,940 ft.; W.O.C.
Lion Oil Ref. Co. No. 2 Clay, 330 ft. N, 660 ft. W, SE cor. NE SW Sec. 12-18-18. Drlg. rd.&gr. sh. 5,786 ft.
Lion Oil Ref. Co. No. 1 S. Frank, C S½ SW NE Sec. 12-18-18. Drlg. gr. sh. 4,138 ft.
Lion Oil Ref. Co. No. 1 S. John, SE cor. SE NE Sec. 12-18-18. Drlg. rd.&gr. sh. 6,035 ft.
Marine Oil Co. No. 7 fee, 330 ft. SE cor. NE NE Sec. 20-18-17. Set 6-in. csg. 7,667 ft.; T.D. 7,690 ft.; perf. csg. 7,592-7,625 ft.; swbd. and flwd. 84 bbl. in 8 hr.; ½-in. ck.; T.P. 250 lb.; C.P. 800 lb.
Phillips Pet. Co. No. 1 Mill, NW cor. S½ Lot 4, SW Sec. 18-18-17. Drlg. rd.&gr. sh. 6,875 ft.

Union County—Other

S. S. Alexander No. 1 J. P. Pickering, C NW NW SW Sec. 31-16-15. Cd. 2,151-52 ft.; soft por. sat. sd., salty taste; D.S.T. S.S.W.; cd. 2,152-56 ft.; rec. 2 ft. por. S.W. sd.; T.D., gr. limy sh. 2,407 ft.; S.D.
J. R. Lockhart No. 1 P. Jerry, 665 ft. W, 235 ft. S, NE cor. NE SE Sec. 15-17-14. R.U.
Bob Milam No. 1 Primm Est., SE cor. Lot 5, NE Sec. 1-16-16. Drlg. 2,170 ft.
Sam Sebersky No. 3 J. N. Jerry, Sec. 21-17-14. Cd. 2,701-13 ft.; set 5½-in. csg. 2,711 ft.; T.D. 2,713 ft.; W.O.C.
V. R. Sims et al No. 1 J. A. Kelly, 330 ft. SW cor., NW SW Sec. 9-17-14. Cd. 2,171-85 ft.; S.O.&G.; T.D., sdy. sh. 3,218 ft.; reported S.O. 2,656-67 ft.; sidewall cores S.O. 2,660 ft.; S.D.; W.O.

NORTH MISSISSIPPI

Clarke County

Jeremiah L. Ryan et al No. 1 M. Eddins, 500 ft. SE cor. Sec. 29-2n-14e. S.D. 1,502 ft.

Lowndes County

Ryan & Anderson No. 1 Swoope, Sec. 3-19s-18w. Set 9-in. csg. 1,162 ft.; drlg. sh. 3,705 ft.

Hinds County

Tatum et al No. 1 S. F. Johnson, NE cor. Sec. 29-6n-1w. S.D. 5,218 ft., sd.; arng. D.D.; erecting 122-ft. drk; sdtrkd. hole at 4,370 ft.; S.D. 6,500 ft.

Humphreys County

Union Prod. Co. No. 1 C. B. Boy, Sec. 29-14n-4w. Drlg. sh. 2,855 ft.

Pike County

S. R. Crouch et al No. 1 E. P. Cupit, Sec. 25-2n-7e. S.D. 532 ft.

Prentiss County

Home Dev. Co. No. 1 Allen, Sec. 8-7s-9e. Drlg. L. 806 ft. (no report).

Simpson County

Cleve Love No. 1 N. E. Garner, SW cor. SW NE Sec. 1-10n-17w. S.D. 3,145 ft.

ARKANSAS

Columbia County

Ark. Fuel Oil Co. No. 1 Glasgow-Crisp, 603 ft. N, 605 ft. W, SE cor. NE SW Sec. 23-17-20. Drld. rd.&gr. sh. 3,917 ft.
Atlantic Ref. Co. No. 1 J. A. Foster, C NW NE Sec. 24-17-20. T.D. 4,026 ft.; P.B. 3,195 ft.; drlg. out cmt. 3,610 ft.
Atlantic Ref. Co. No. 1-E Garrett, C SE NW Sec. 24-17-20. T.D. 7,640 ft.; set 5½-in. csg. 7,138 ft.; drld. out plug to 7,640 ft.; rng. 4½-in. lnr. 7,640 ft.
Atlantic Ref. Co. No. 1 Pine Woods Lbr. Co., C NE NE Sec. 16-18-22. Set 9⅝-in. csg. 4,102 ft.; cg. 4,237 ft.
Atlantic Ref. Co. No. 1 L. Spain, C SW SW Sec. 18-17-19. M.I.M.
Lion Oil Ref. Co. No. 1 Tisue, C SW NW Sec. 15-18-19. Drlg. rd.&gr. sh. 5,835 ft.
Mid-Continent Pet. Corp. No. 1 Foster, C NE SW Sec. 24-17-20. R.U.
Phillips Pet. Co. No. 1 J. A. Joiner, C SE NE Sec. 22-17-20. Drlg. rd.&gr. sh. 4,780 ft.
Phillips Pet. Co. No. 1 L. A. Longino, C SW SE Sec. 15-17-20. Drlg. rd.&gr. sh. 5,893 ft.
Placid Oil Co. No. 1 R. A. Couch, C NW NW Sec. 19-17-19. Drlg. rd.&gr. sh. 5,675 ft.
Shell Pet. Corp. No. 1 Peoples Bnk. of Columbia, C NW SW Sec. 24-17-20. Drlg. rd.&gr. sh. 5,300 ft.
Southwood Oil Co. No. 1 J. A. Foster, C NE NE Sec. 24-17-20. T. Smkvr. L. 7,358 ft.; T. por. L. 7,390 ft.; cg. 7,512 ft.
Southwood Oil Co. No. 1 D. Glasgow et al, C NE NE Sec. 22-17-20. M.I.M.
Standard Oil Co. of La. No. 1-B Lewis Unit, 660 ft. SW cor. NE NE Sec. 15-17-19. R.U.
G. H. Vaughn No. 2 Baker, C NE SE Sec. 15-17-20. Drlg. rd.&gr. sh. 6,100 ft.
G. H. Vaughn et al No. 1 J. Jones, C NE NE Sec. 21-17-20. Drlg. rd. sdy. sh. 7,135 ft.
G. H. Vaughn No. 1 L. Paschal, C SE NW Sec. 22-17-20. Drlg. 3,050 ft.

Craighead County

Tannark, Inc., No. 1 R. M. Martin, Sec. 35-14-3e. S.D. 2,225 ft.

Lafayette County

East Texas Ref. Co. et al No. 1 Warren Est., C N½ NE NW Sec. 24-16-24. T.D. 115 ft.; S.D.; W.O.
East Texas Ref. Co. et al No. 1 W. Wright, C S½ NW NW Sec. 23-16-24. Set 15½-in. csg. 10 ft.; W.O.C.
East Texas Ref. Co. and Erwin & Leach No. 1 H. D. Scruggs, C N½ NW SW Sec. 23-16-24. Set 15½-in. csg.; S.D.; W.O.
Standard Oil Co. of La. No. 6 McKean, 660 ft. NE cor., SE SW Sec. 7-16s-22w. Drlg. sh.&L. 4,700 ft.
J. C. Stephens No. 1 J. A. Allen, C N½ NW NW Sec. 30-16-23. Set 10¾-in. csg. 112 ft.; W.O. 115 ft.

LOUISIANA

N. LOUISIANA WILDCATS

Bienville Parish

Ark. La. Gas Co. No. 2 Gayoso, 660 ft. SW cor. SE Sec. 14-16-10. T. Tr. Pk. 5,432 ft.; D.S.T. 5,796-5,805 ft. tstd. dry in 26 min.; set 8⅝-in. csg. 6,300 ft.; T.D. 8,319 ft.; set csg.; per. 8,285-8,314 ft.; flwd. est. 2,000,000 cu. ft. gas and sprayed S.W.; acdzd. with 6,000 gal. and tstd. est. 4,000,000 cu. ft. gas and spray S.W.; perf. 8,110-70 ft. and 8,306-12 ft.; flwd. 39 bbl. dist., 16 bbl. S.W. and 1,500,000 cu. ft. gas on ¼-in. ck.; acdzd. with 2,000 gal. and tstd. same; R.P. 2,818 lb.; drlg. ahd. 8,332 ft.
Ark. La. Gas Co. No. 1-B Thomas et al. SE cor. Sec. 15-16-10. T. Pett. L. 5,115 ft.; por. 5,196 ft.; T.D. 5,300 ft.; set 7-in. csg.
Hunt Oil Co. No. 1 T. A. Loe, C NE Sec. 2-16-6. Drlg. rd. sh.&L. 5,277 ft.

Bossier Parish

H. M. Harrell et al No. 1 Thompson Unit, 70 ft. NW, C SE Sec. 20-17-11. R.U.

Caddo Parish

J. G. Bailey No. 2 Muslow, 672 ft. S, 396 ft. W, NE cor. SE NW Sec. 17-20-15. O.W.D.D.; O.T.D. 2,198 ft.; cg. 2,840 ft.
Frank G. Bandein No. 1 Caddo Levee Bd., 150 ft. S, 350 ft. W, NE cor. NW SE Sec. 26-21-16. R.U.
Burton & Harlan No. 1-A Perche, 500 ft. S, 747 ft. E, C Sec. 1-20-16. R.U.
Drillers, Inc., No. 1 Ellerbe, SW cor. Sec. 23-18-14. Set 5½-in. csg. 5,554 ft.; acdzd. with 3,500 gal. and tstd. 1,500 ft. O.I.H.; S.D.; W.O. 5,560 ft.
J. T. Driscoll No. 1 Woolworth, SE cor. Sec. 26-20-15. Set 9⅝-in. csg. 1,370 ft.; T.D. 5,607 ft.; set 5½-in. csg. 5,602 ft.; T. Pett. L. 5,604 ft.; tstd. S.W.; P.B. 5,605 ft.; retested S.W.
East Texas Ref. Co. No. 1 North Cent. Tex. Oil Co., SE cor. SW Sec. 4-23-15. Drlg. sh.&L. 5,473 ft.
East Texas Ref. Co. No. 1 Pill, SW cor. SE NW Sec. 4-23-15. Drlg. sh.&L. 5,250 ft.
W. C. Feazel and Eagle Prod. Corp. No. 1 Caddo Mercantile Co., 2,310 ft. W, 955 ft. S, NE cor. Sec. 5-23-15. R.U.; W.O.
M. M. Ferrell No. 1 Satterwhite, SE NW Sec. 10-20-16. Set 6-in. csg. 1,335 ft.; tstd. S.W.; S.O. 1,580 ft.; acdzd. with 3,000 gal.; tstd. S.W.; S.O.; S.D. 2,010 ft.; rng. 4½-in. csg. 2,263 ft.
H. H. Groneman No. 1 Browning, 330 ft. SW cor. Sec. 22-22-16. O.W.D.D.; O.T.D. 2,695 ft.; drld. out to 2,631 ft.;

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swbg.; tstd. 1,800 ft. O.I.H.; T.D. 2,-631 ft.

Hamilton & Stone No. 1 Atlanta, 500 ft. S, 244 ft. W, NE cor. NW Sec. 2-20-16. Drlg. ch. rk. 1,605 ft.

Lisbon Iberia Oil Co. No. 1 Atkins, Sec. 2-17-14. Set 9⅝-in. csg. 1,508 ft.; drlg. L.&sh. 4,850 ft.

C. C. Lowery No. 1 Ledbetter, Sec. 7-20-15. Set 10-in. csg. 60 ft.; T.D. 1,340 ft.; set 6⅝-in. csg. 1,300 ft.

C. H. Lyons et al No. 1 Agurs, 760 ft. N, 710 ft. W, SE cor. Sec. 34-18-14. Set 9⅝-in. csg. 1,302 ft.; drlg. 1,332 ft.

Natal Oil Co. No. 5 Stiles, 400 ft. NE cor. NW NW Sec. 27-21-16. Set 7-in. csg. 1,020 ft.; T.D. 1,024 ft.; W.O.S.R.

Natal Oil Co. No. 6 Stiles, 1,120 ft. E, 150 ft. N, SW cor. Sec. 22-21-16. Drlg. sh. 260 ft.

W. R. Nicholson Oil Co. No. 1 Lane, 330 ft. SE cor. Sec. 28-22-16. Set 10-in. csg. 101 ft.

J. Ober & Sons No. 2 fee, 920 ft. N, 200 ft. W, C Sec. 36-2-16. Drlg. ch. rk. 1,-510 ft.

Oblinger & Ritter No. 3 Boisseau, 1,220 ft. N, 1,310 ft. E, SW cor. SE Sec. 34-21-16. Drlg. 550 ft.

Seymour Oil Co. No. 1 Hughes et al. 330 ft. NE cor. NW Sec. 15-20-15. S.D. 1,-700 ft.; rig repair.

Stanolind O. & G. Co. No. 1, 131 Dillon Hrs., C SE NE Sec. 14-21-15. Set 16-in. csg. 494 ft.; drlg. sh. 2,396 ft.

Joe Strahan No. 2 Hart, 1,208 ft. N, 320 ft. E, SW cor. Sec. 29-21-16. Drlg. sh. 2,088 ft.

Joe Straughn No. 1 Stiles, SW cor. Sec. 29-21-16. Set 6-in. csg. 2,394 ft.; W.O. S.R. 2,397 ft.

Texas Co. No. 52 Caddo Minerals, 1,350 ft. N, 400 ft. E, SW cor. Sec. 23-21-15. Set 6-in. csg. 1,490 ft.; T.D. 1,501 ft.; acdzd. with 4,000 gal.; swbg.; T.D. 1,643 ft.

Tippett Oil Co. No. 1 T. Bell, 330 ft. SW cor. NE Sec. 34-22-16. Set 5½-in. csg. 2,438 ft.; completing; T.D. 2,460 ft.

Wardell Oil Co. and Harry Fotiades No. 1 R. Mandel, Sec. 26-18-14. Set 9⅝-in. csg. 1,363 ft.; drlg. L. 5,400 ft.

R. W. Williams No. 3 Ark. Fuel Oil Co., 330 ft. NW cor. NW SW Sec. 25-21-16. Set 5-in. csg. 2,277 ft.; T.D. 2,335 ft.; tstd. S.W. 2,335 ft.; P.B. 2,305 ft.; W.O.S.R.

Caldwell Parish

Critchett & Woods (formerly E. T. Oakes) No. 1 Kyles, NE cor. SW NE Sec. 18-11-3e. S.D. 2,476 ft.; W.O.

Catahoula Parish

Ross Morel et al No. 1 Ballard Est., 330 ft. SE cor. SE SW Sec. 8-9n-7e. Set 10-in. csg. 100 ft.; S.D. 270 ft.

Claiborne Parish

E. T. Oakes No. 1 Ford, C SW NE Sec. 29-21-5. S.D. sdy. sh. 3,590 ft.

De Soto Parish

Atlantic Ref. Co. and Seaboard Oil Corp. No. 1 Frank Grocery Co., NW Sec. 35-12-11. Set 8-in. csg. 101 ft.

Daniel Murray No. 1 Russell, 50 ft. N, 500 ft. W, SE cor. NE NW Sec. 12-11-16. O.W.D.D.; O.T.D. 2,046 ft.; T.D. 2,-166 ft.; drlg. sh 2,240 ft.

Grant Parish

C. M. Bowers No. 1 Morrison, 2,740 ft. N. 3,040 ft. W, SE cor. Sec. 34-9n-1w. Set 10-in. 80 ft.

La Salle Parish

Snow Black Oil Co. No. 1 Pendarvis, 250 ft. NE cor. SW SE Sec. 21-10-1e. S.D. 1,350 ft.

Snow Black Oil Co. No. 2 Tullos, SW cor. SE Sec. 23-10-1e. R.U.; S.D.

Natchitoches Parish

Jack Lent No. 1 Walker, C NE NE Sec. 9-10-10. R.U.

Jack Lent et al No. 1 Whatley, SW cor. Sec. 17-10-10. S.O.&G. reported at 1,-490-1,516 ft.; D.S.T. 3,282-96 ft.; tstd. 100 ft. mud cut with 40-grv. oil; P.B. 3,300 ft.; set 6⅝-in. csg. 3,282 ft.; bld. down 600 ft. of bttm.; S.S.O.; ran 2-in. tbg. and lnr. and tstd. S.O.&S.W.; pmpd. S.O. and much S.W.; pmpd. off approx. 10 B.O.; did not shoot with nitro; bailing; S.O.&wtr.; T.D. 330 ft.. S.D.; W.O.

Sabine Parish

Ed Bailey No. 1 Hale, 330 ft. NW cor. NE NW Sec. 6-7-12. Drlg. 40 ft.

Geo. Ellis No. 1 Walker, 500 ft. NW cor. NW SE Sec. 8-4-12. Set 12½-in. csg. 276 ft.; reported S.O. 2,180 ft. and 2,263-65 ft.; rng. csg. 2,269 ft.; cd. sdy. sh. 2,265-69 ft.; set 7-in. csg. 2,250 ft.; drld. plug; T.D. 2,271 ft.; tstd. S.W.; W.O.

Okla.-Tex. Tr. No. 2 Frost Lbr. Ind., 330 ft. SE cor. NE SW Sec. 22-9-13. R.U.

Potter et al No. 1 Ebarb, NE cor. SE Sec. 4-7-13. Set 6-in. csg. 2,038 ft.

W. M. Quick No. 1 Sabine, SE cor. NE NE Sec. 8-7-13. Tstg. 2,397 ft.

H. M. Sneed No. 1 Leone, SW cor. NW SE Sec. 8-7-13. T.D. 1,962 ft.; S.D.; repair.

A. Tillman No. 1 Ritter, 400 ft. NE cor. SE SW Sec. 26-8-12. S.D. 1,900 ft.

J. A. Williams No. 1 Long Bell Lbr. Co., 250 ft. S. 550 ft. W, C Sec. 33-8-14. Drlg. sh. 210 ft.

Tensas Parish

Continental Oil Co. No. 1 Cammack, 1,-690 ft. S. 330 ft. W, NE cor. Sec. 31-13-12e. Set 10¾-in. csg. 1,523 ft.; T.D. 1,532 ft.

Webster Parish

Geo. Barham No. 1 A. J. Hodges, 1,916 ft. N, 728 ft. E, SW cor. Sec. 23-21-10. Drlg. sh. 4,557 ft.

Hunt Oil Co. No. 1 Coffee, C SW NW Sec. 19-21-9. Drlg. sh. 175 ft.

Hunt Oil Co. No. 30 Hope, 100 ft. W, C NE SW Sec. 30-21-10. Drlg. sh.&L. 6,-482 ft.

Hunt Oil Co. and Magnolia Pet. Co. No. 1 Gray-Cox, SW cor. Sec. 19-21-9. Drlg. sdy. sh. 7,589 ft.

Hunt Oil Co. No. 1 Stewart, NW SE Sec. 32-21-10. Set 9⅝-in. 5,672 ft.; drlg. sh.&L. 8,237 ft.

Magnolia Pet. Co. No. 1 Roseberry Unit, 20 ft. N and W, C SE Sec. 29-23-9. Used. 750 gal. acd. and flwd. and swbd. 83 B.P.D.; T.D. 9,250 ft.; O.T.D. 9,380 ft.; flwd. 31 bbl. in 5½ hr.; 3 heads; through 1-in. ck.; pulled 2½-in. tbg. and ran 2-in. tbg.; flwd. 50 B.P. D. by heads; went in to shoot with 65 qt. nitro. at 9,250 ft.; went off at 8,-350 ft.; C.O. hole; T.D 9,250 ft.; P.B. 8,318 ft. and perf.; Bodcaw sd. 8,292-6,030 ft.; drld. out at 6,025 ft.; drlg. sdy. sh. 6,694 ft

Ohio Oil Co. No. 6 Bodcaw, Acct. 4, 660 ft. NE cor. NW Sec. 13-21-10. Drlg. anhy.&sh. 4,570 ft.

Oliphant Oil Corp. No. 2-A Hodges, 660 ft. W, 460 ft. S, NE cor. Sec. 3-20-10. Set 13-in. csg. 721 ft.

Union Prod. Co. No. 1 Walker Unit, 50 ft. S, C SE Sec. 30-18-8. Set 9⅝-in. csg. 6,490 ft.; T. Pettit 6,665 ft.; T. Tr. Pk. 6,910 ft.; drlg. sd. 10,239 ft.

SOUTH LOUISIANA FIELDS

Abbeville—Vermilion Parish

Continental Oil Co. No. 1 Alfred Boudoin, Sec. 58-12s-3e. Drlg. sh. 7,510 ft.

Continental Oil Co. No. 1 David Meaux, Sec. 9-12s-3e. Loc.

Continental Oil Co. No. 1 Franciol, Sec. 67-12s-3e. Drk.

Continental Oil Co. No. 1 Lucion Duhon, Sec. 17-12s-3e. T.D. 10,762 ft.; 7-in. csg. 10,316 ft.; P.B. 10,201 ft.; cd. sd., S.O. &G. 10,112-70 ft.

Stanolind O. & G. Co. No. 1 Blanchet, Sec. 67-12s-3e. T.D. 8,009 ft.; 7-in. csg. 7,938 ft.; perf. csg. 7,880-85 ft.; I.P. 33 bbl. dist. per day; 12/64-in. ck.

Bancroft—Beauregard Parish

Republic Prod. Co. No. 8 Columbia Ld. & Tbr. Co., Sec. 15-6s-13w. T.D. 7,336 ft.; 5½-in. csg. 7,328 ft.

Republic Prod. Co. No. 1 Hennigan, Sec. 15-6s-13w. T.D. 7,320 ft.; I.P. 168 B. P.D.; 9/64-in. ck

Republic Prod. Co. No. 4 Lutcher Moore Lbr. Co., Sec. 16-6s-13w. Drk.

Republic Prod. Co. No. 7 Lutcher Moore, Sec. 14-6s-13w. T.D. 8,000 ft.; rng. csg.

Bateman Lake—St. Mary Parish

Texas Co. No. 2 State-Bateman Lake, Sec. 21-16s-12e. 13⅜-in. csg. 1,700 ft.; T.D. 9,453 ft.; sdtrkd. 6,880 ft.; drld. into old hole; P.B. 6,580 ft.; sdtrkd.; T.D. 9,156 ft;. P.B.; sdtrkd.; drlg. 8,-875 ft.

Baton Rouge—East Baton Rouge Parish

W. V. Bowles No. 1 Richard Community, Sec. 46-7s-1e. Cg. sh. 6,502 ft.

Geo. Echols No. 1 Evans Duplantier, Sec. 68-7s-1w. T.D. 6,506 ft.; rng. csg.

Geo. Echols No. 1 Geo. F. Morgan, Sec. 68-7s-1w. Drlg. sh. 4,110 ft.

Guaranty Oil Co. No. 1 D. J. Morgan 9⅝-in. csg. 1,169 ft.; T.D. 3,708 ft.; P. B. to 2,065 ft. to srghtn. hole; sdtrkd.; T.D. 6,539 ft.; P.B. to sdtrk.; drlg. sdy. sh. 2,529 ft.

Wm. Helis No. 1 Farris-Middleton, Sec. 66-7s-1w. Loc.

Geo. Helis et al No. 1 Haase Community, Sec. 64-7s-1e. S.D. 7,303 ft.

Wm. Helis No. 1-D Duplantier, Sec. 66-7s-1w. Drlg. sd. 2,300 ft.

Wm. Helis No. 1 P. Mazzarisa, Sec. 66-7s-1w. Drlg. sd. 508 ft.

Lisbon-Iberia Oil Co. No. 2 Duplantier, Sec. 66-7s-1e. Drlg. sdy. sh. 5,831 ft.

T. G. Markley-Crosby Drlg. Co. No. 1 Knox et al, Sec. 66-7s-1w. 10¾-in. csg. 1,960 ft.

T. G. Markley-Crosby Drlg. Co. No. 2 Knox et al, Sec. 66-7s-1w. Loc.

Bay St. Elaine—Terrebonne Parish

Texas Co. No. 3-B State-Bay, Sec. 13-22s-17e. Drlg. sh. 10,246 ft.

Texas Co. No. 19 State-Bay St. Elaine, Sec. 18-22s-18e. Loc.

Bayou Blue—Iberville Parish

Humble O. & R. Co. No. 11 Wilberts, Sec. 67-9s-11e. Loc.

Bayou des Allemands—St. Charles Parish

Amerada Pet. Corp. No. 4 St. Charles Ld. Co., Sec. 13-15s-2e. Loc.

De Large—Terrebonne Parish

Fohs Oil Co. No. 1 Buckley-Mahler, Sec. 25-19s-16e. 13⅜-in. csg. 3,380 ft.; T.D. 10,211 ft.; 9⅝-in. csg. 10,058 ft.; drlg. sh. 11,200 ft.

Caillou Island—Terrebonne Parish

Texas Co. No. 1-B State-Caillou Island, Sec. 19-23s-20e. 9⅝-in. csg. 5,482 ft.; T.D. 5,606 ft.

Texas Co. No. 29 State, Sec. 17-23s-20e. Rig.

Cameron Meadows—Cameron

Burton-Sutton Oil Co. No. 26 Sch. Ld., Sec. 16-14s-13w. T.D. 2,465 ft.; 13⅜-in. csg. 2,465 ft.; T.D. 6,564 ft.; P.B. sdtrkd.; T. salt 8,059 ft.; T.D. 8,065 ft.; P.B. to 2,845 ft.; sdtrkd.; T.D. 7,-172 ft.; fsg.

Magnolia Pet. Co. No. 24 Cameron Meadows Ld. Co., Sec. 21-14s-13w. Top salt 5,246 ft.; T.D. 5,305 ft.; P.B. to sdtrk.

Chacahoula—La Fourche Parish

Sun Oil Co. No. 1 Cypress, Sec. 75-15s-15e. Dredge canal.

Sun Oil Co. No. 4 Delbert Stark and Brown Cypress Co., Sec. 70-15s-15e. T.D. 7,794 ft.; P.B. 6,764 ft.; sdtrkd.; T.D. 8,268 ft.; stk. D.S.; shot at 8,195 ft.; P.B. 7,642 ft.; sdtrkd. 7,642 ft.; T. D. 8,260 ft.; 9⅝-in. csg. 8,260 ft.; T.D. 8,292 ft.; cleaned hole; found csg. collapsed; recmtd. csg.; rmg. 7,176 ft.; found leak in csg.; recmtd.; P.B. 7,969 ft.; sdtrkd.; T.D. 8,311 ft.; stk. D.S.; fsg.; cutting and pulling csg.

Chalkley Field—Cameron Parish

Humble O. & R. Co. No. 4 Hanzen, 10¾-in. csg. 2,745 ft.; drlg. sh. 7,122 ft.

Shell Pet. Corp. No. 1-A Katherine Bel Hanzen, Sec. 15-12s-6w. T.D. 9,500 ft.; perf. csg. 9,050-55 ft.: made sqze. job; fsg.; perf. csg. 9,038-41 ft.; tested S.W.; abd.

Charenton—St. Mary Parish

Commerce Oil Co. No. 1 T. Brulation Sec. 19-13s-10e. 7-in. csg. 8,509 ft.; drlg. sh. 8,820 ft.

Pan American Prod. Co. No. 1 Achee, Sec. 21-13s-9e. Loc.

Pan American Prod. Co. No. 13 Laws Realty Co., Sec. 30-13s-10e. T.D. 7,212 ft.; 5½-in. csg. 7,213 ft.; perf. csg. 7,-163-70 ft.; tstd. S.W.; perf. csg. 5,834-44 ft.; I.P. 160 B.P.D., 14/64-in. choke.

Pan American Prod. Co. No. 14 Laws Realty Co., Sec. 30-13s-10e. T.D. 7,405 ft.; P.B. 6,950 ft.; sdtrkd.; drlg. sh. 7,698 ft.

Pan American Prod. Co. No. 5 South Coast, Sec. 30-13s-10e. Drlg. sdy. sh. 8,010 ft.; no report.

Pan American Prod. Co. No. 14 Veeder, Sec. 11-13s-9e. T.D. 3,020 ft.; P.B. 1,053 ft.; sdtrkd.; T.D. 1,058 ft.; 7-in. csg. 1,037 ft.; I.P. 50 bbl. net oil, pumping.

Cheneyville—Rapides Parish

Gulf Oil Corp. No. 1 M. B. Pope, Sec. 4-1s-2e. Drlg. sh. 5,734 ft.

Texas Canadian Oil Co. No. 1 Mathis, Sec. 4-1s-2e. Perf. csg. 5,765-85 ft.; I.P. 565 B.P.D., ¼-in. choke.

Convent—St. James Parish

Continental Oil Co. No. 2 Colonial Sugars, Inc., Sec. 50-12s-4e. R.U.

Continental Oil Co. No. 2 Realty Operators, Inc., Sec. 16, 13⅜-in. csg. 1,-492 ft.; T.D. 7,889 ft.; P.B. 7,275 ft.; sdtrkd. 7,305 ft.; T.D. 8,235 ft.; well blew out; caught fire; cleaned hole to 4,866 ft.; P.B. 2,502 ft.; sdtrkd.; T.D. 7,967 ft.; 9⅝-in. csg. 7,950 ft.; drlg. sh. 8,511 ft.

Darrow—Ascension Parish

Humble O. & R. Co. No. 22 Community, Sec. 32-10s-2e. R.U.

Humble O. & R. Co. No. 5 Landry, Sec. 34-10s-2e. S.D. 3,006 ft.

Kiva Oil Co. No. 1 Dupiessis, Sec. 69-10s-2w. S.D. 2,523 ft.

Dog Lake—Terrebonne Parish

Texas Co. No. 9 State, Sec. 5-22s-16e. T.D. 7,441 ft.; 7-in. csg. 7,385 ft.; perf. csg. 7,285-35 ft.; I.P. 32 bbl. dist. per day, 3/16-in. choke.

Eola—Avoyelles Parish

Amerada Pet. Corp. No. 1 Avoyelles Bnk. & Tr. Co., Sec. 5-2s-3e. R.U.

Amerada Pet. Corp. No. 1 Mrs. C. B. Machine, Sec. 6-2s-3e. T.D. 8,601 ft.. 5½-in. csg. 8,599 ft.; perf. csg. 8,573-78 ft.; I.P. 810 B.P.D., ¼-in. choke.

Amerada Pet. Corp. No. 2 Mrs. C. B. Machine, Sec. 6-2s-3e. Loc.

Amerada Pet. Corp. No. 1 Merchants & Planters Bnk., Sec. 41-1s-3e. Loc.

Amerada Pet. Corp. No. 1 Robert Irion, Sur., Sec. 6-2s-3e. 9⅝-in. csg. 1,462 ft.

W. C. Feazel No. 1 Leila Keller, Sec. 7-2s-1e. R.U.

Gulf Expln. Co. No. 1 Samuel Haas Est., Sec. 8-2s-3e. T.D. 7,006 ft.; P.B. 6,450 ft.; crooked hole; sdtrkd.; T.D. 8,584 ft.; made D.S.T.

Geo. E. Lilly et al No. 1 Haas Inv. Co., Sec. 1-2s-2e. Spudded.

Sid Richardson No. 5 Haas Inv. Co., Sec. 5-2s-3e. Top Wilcox 8,472 ft.; run. csg.

Sid Richardson No. 1 S. S. Pierce, Sec. 6-2s-3e. Drlg. sh. 8,100 ft.

Sid Richardson No. 2 State Bayou Boenf, Sec. 7-2s-3e. Drlg. sh. 840 ft.

Garden Island—Plaquemines Parish

Texas Co. No. 34 State, Sec. 38-23s-33e. T.D. 4,600 ft.; 7-in. csg. 4,574 ft.

Golden Meadows—La Fourche Parish

Geo. Lilly et al No. 1 Jack Collins, Sec. 12-19s-22e. S.D. 7,070 ft.

M. H. Marr and R. A. Bristol No. 1 Church property, Sec. 2-19s-22e. Drk.

M. H. Marr and G. H. Vaughn No. 1 B. & D. Unit, Sec. 12-19s-22e. 10¾-in. csg. 2,301 ft.; cg. 7,260 ft.

Martex Pet. Corp. No. 1 Falgout Holding Co., Inc., Sec. 9-19s-22e. Cd. sh.& sd.; O.S. 2,636-45 ft. and oil sd. 2,645-54 ft.; drlg. sh. 7,295 ft.; rec. 36 stands 42-gr. oil; D.S.T. 7,121-7,202 ft. cd. oil sd. 7,919-64 ft.; cd. S.W. sd. 7,-965 ft.; run 7-in. csg.; T.D. 8,524 ft. (corrected); 7-in. csg. 8,524 ft.; perf. csg. 8,163-75 ft.; dropped tbg. in hole; fsg.; P.B. 7,975 ft.; perf. csg. 7,925-55 ft.; 120 holes; I.P. 360 B.P.D., 10/64-in. choke.

Martex Pet. Corp. No. 2 Falgout Holding Co., Sec. 9-19s-22e. R.U.

St. Mary Oil Co. No. 1 Choust Unit, Sec. 12-19s-22e. Drk.

Taylor Fithian et al No. 1 Etenne Perrin, Sec. 12-19s-22e. R.U.

Texas Co. No. 2 State-Catfish Lake, Sec. 3-20-21e. Drlg. sh. 2,874 ft.

Texas Co. No. 3 State-Catfish Lake, Sec. 76-19s-21e. Loc.

John Vocarro et al No. 1 D. and B. Cheramine, Sec. 12-19s-22e. R.U.

Grand Bay—Plaquemines Parish

Gulf Oil Corp. No. 4 Grand Prairie Lve Dist., Sec. 48-20s-18e. Drlg. sdy. sh. 9,683 ft.

Gulf Oil Corp. No. 6-A Grand Prairie Lv. Dist., Sec. 17-20s-19e. Dredge canal.

Gulf Oil Corp. No. 2 State. Sec. 6-20s-19e. 9⅝-in. csg. 9,431 ft.; drlg. sdy. sh. 9,815 ft.

Grand Lake—Cameron Parish

Amerada Pet. Corp. No. 1 Mallard Bay-State, Sec. 12-13s-4w. Bldg. drk.

Superior Oil Co. No. 2 State, Twp. 13s-4w. Drlg. sh. 1,856 ft.

Hackberry—Cameron Parish

Gulf Oil Corp. No. 25-A Erwin, Sec. 13-12s-10w. Drk.

Stanolind O. & G. Co. No. 28-A Gulf fee, Sec. 30-12s-10w. T.D. 5,640 ft.; fsg.

Superior Oil Co. No. 1 Kaough, Sec. 31-12s-10w. T.D. 7,673 ft.; perf. csg. 7,015-7,150 ft.; I.P. 505 B.P.D., 11/64-in. choke.

Texas Co. No. 26 State, Twp. 12s-9w. Drlg. sd. 7,455 ft.

Union Sulphur Co. No. 8 Caldwell, Sec. 37-2s-10w. T.D. 7,344 ft.; fsg.

Union Sulphur Co. No. 12 Doiron, Sec. 37-12s-10w. T.D. 8,064 ft.; P.B.; sdtrkd.; drlg. sh. 5,430 ft.

Union Sulphur Co. No. 1 Josephine O'Quinn, Sec. 37-12s-10w. T.D. 6,927 ft.; sdtrkd.; 7-in. csg. 8,014 ft.; T.D. 8,237 ft.; T.S. 8,220 ft.; tstd. S.W.; pulling screen.

Horseshoe Bayou

Texas Co. No. 2 St. Mary Parish Ld. Co., Sec. 37-17s-9e. Cg. sh.&L. 10,168 ft.

Jefferson Island—Iberia Parish

Phillips Pet. Co. No. 1 Breaux, Sec. 41-12s-5e. Drlg. sh. 6,770 ft.

Texas Co. No. 2 State-Lake Peigneur, Twp. 12s-5w. T. salt 7,419 ft.; T.D. 7,-437 ft.; P.B. 6,292 ft.; P.B. and side tracked; salt 7,957 ft.

Jennings—Acadia Parish

Gulf Oil Corp. No. 41 Arnaudet, Sec. 47-9s-2w. 9⅝-in. csg. 4,557 ft.; drlg. sh. 7,270 ft.

Port City Oil Co. No. 24 Jennings Haywood, Sec. 41-9s-2w. T.D. 2,832 ft.; 5-in. csg. 2,832 ft.; perf. csg. 2,790-2,800 ft.

St. Mary Oil Co. No. 1 Gulf fee, Sec. 45-9s-2w. R.U.

Shell Oil Co., Inc., No. 7 Conover, Sec. 40-9s-2w. T.D. 5,161 ft.; fsg.

Stanolind O. & G. Co. No. 114 Crowley Oil & Mineral Co., Sec. 48-9s-2w. T.D. 3,755 ft.; P.B. 1,293 ft.; P.B. 1,900 ft.; sdtrkd.; T.D. 4,581 ft.; 10¾-in. csg. 4,-578 ft.; drlg. sh. 5,196 ft.

Superior Oil Co. No. 4 Moresi, Sec. 41-9s-2w. Spudded.

Lafitte—Jefferson Parish

Texas Co. No. 13 Lafitte, Sec. 17-17s-24e. Drlg. sh. 2,331 ft.

Texas Co. No. 2-B Madison Realty Co., Sec. 19-17s-24e. Loc.

Texas Co. No. 2-B Madison, Sec. 19-17s-24e. Loc.

Texas Co. No. 2 Sch. Bd., Sec. 20-17s-24e. T.D. 6,601 ft.; sdtrkd. 6,375 ft.; went back into old hole; trying to sdtrk. at 6,387 ft.; drlg. sdy. sh.&L. 10,568 ft.

Texas Co. No. 2 State-Bayou Norman, Sec. 21-17s-24e. 10¾-in. csg. 1,942 ft.; T.D. 10,018 ft.; oil sd. 9,978-98 ft.; make D.S.T.

Lake Barre—Terrebonne Parish

Texas Co. No. 43 State, Sec. 30-21s-20e. T.D. 4,122 ft.; P.B.; sdtrkd.; T.D. 5,144 ft., 5-in. csg. 4,783 ft.; tstg.

Lake Hermitage—Plaquemines Parish

Gulf Oil Corp. No. 10 La Fourche Basin Levee Dist., Sec. 2-18-25e. Drlg. sdy. sh. 3,686 ft.

Lake Long—La Fourche Parish

Fohs Oil Co. No. 8 State, Twp. 17s-19e. T.D. 9,600 ft.; P.B. 9,034 ft.; sdtrkd. at 9,034 ft.; 7-in. csg. 10,254 ft.; T.D. 10,258 ft.; cmtd. perf. 9,156-61 ft.; W.O.C.

Fohs Oil Co. No. 9 State, 600 ft. S of No. 6 State in lake, Twp. 17s-19e. Loc.

Leoville—La Fourche Parish

Texas Co. No. 21 L.L.&E., Sec. 27-21s-22e. Loc.

Lake Mongoulois—St. Martin Parish

Texas Co. No. 7 State, Sec. 10-10s-9e. Drlg. sh. 8,915 ft.

Lake Pelto—Terrebonne Parish

Texas Co. No. 25 State, Sec. 18-23s-18e. T.D. 5,750 ft.; sdtrk. 4,440 ft.; T.D. 5,081 ft.; 7-in. csg. 5,030 ft.

Lirette—Terrebonne Parish

Humble O. & R. Co. No. 1 W. E. Mont, Sec. 32-19s-19e. Loc.

Humble O. & R. Co. No. 2 La Terre Ld.

Co., Sec. 32-19s-19e. Drlg. sdy. sh. 6,800 ft.
Humble O. & R. Co. No. 3 Laterre Land Co., Sec. 32-19s-19e. Loc.

New Iberia—Iberia Parish

Canal Oil Co. No. 12 Bernard, Sec. 54-12s-7e. Drlg. sd.&sh. 3,033 ft.
Wm. Helis No. 8 Bolivar, Sec. 56-12s-7e. T.D. 2,586 ft.; abd.
Wm. Helis No. 7 J. E. Schwing, Sec. 56-12s-7e. Drlg. sh. 1,793 ft.
Lisbon-Iberia Oil Corp. No. 7 Gulf fee, Sec. 25-12s-7e. T.D. 5,939 ft.; P.B.; sdtrkd.; T.D. 6,019 ft.; P.B. 3,738 ft.; sdtrkd.; no report.
Texas Co. No. 2 Bryant, Sec. 25-12s-7e. R.U.
Texas Co. No. 1 Frances Compton, Sec. 71-12s-7e. Drlg. sh. 4,038 ft.
Texas Co. No. 1 Anna B. Schwing, Sec. 71-12s-7e. R.U.

North Crowley—Acadia Parish

Humble O. & R. Co. No. 4 H. J. Habetz, Sec. 45-8s-1e. 10¾-in. csg. 2,017 ft.; T.D. 8,240 ft.; pulling tbg.

North Tepetate—Acadia Parish

St. Mary Oil Co. No. 1 Dr. H. Jenkins, Sec. 12-7s-2w. Drlg.

Port Barre—St. Landry Parish

Pan American Prod. Co. No. 7 Cormier, Sec. 4-6s-5e. R.U.
Pan American Prod. Co. No. 3 Haas & Hirsch, Sec. 4-6s-5e. T.D. 6,932 ft.; fsg.
Smith & McDannald No. 1 S. W. Futral, Sec. 20-6s-5e. T.D. 4,841 ft., salt; P.B.; prepare to sdtrk.
Y. D. Spill No. 1 Gaudet, Sec. 4-6s-5e. S.D. 4,700 ft.
Western Gulf Prod. Co. No. 1 Watkins, Sec. 4-6s-5e. T.D. 5,343 ft.; 7-in. csg. 5,200 ft.; perf. csg. 4,975-95 ft.; S. W.; abd.

Potash—Plaquemines Parish

Humble O. & R. Co. No. 39 Orleans Lve. Bd., Sec. 13-8s-15e. 16-in. csg. 244 ft.; T.D. 4,548 ft.; stuck D.S.; fsg.

Quarantine Bay—Plaquemines Parish

Gulf Oil Corp. No. 10 State QQ, Sec. 17-19s-17e. T.D. 8,193 ft.; 9⅝-in. csg. 8,175 ft.
Gulf Oil Corp. No. 3-A Orleans Lve. Bd., Sec. 7-19s-17e. T.D. 8,115 ft.; 7-in. csg. 8,115 ft.; I.P. 624 B.P.D., ¼-in. choke.
Gulf Oil Corp. No. 2-A Plaquemines Ld. Co., Sec. 7-19s-17e. 13⅜-in. csg. 1,524 ft.; T.D. 8,158 ft.; 7-in. csg. 8,132 ft.; I.P. 146 B.P.D., ¼-in. choke.
Gulf Ref. Co. No. 5 State, Sec. 17-19s-17e. Loc.
Gulf Oil Corp. No. 9 State QQ, Sec. 18-19s-17e. Loc.

Raceland—La Fourche Parish

Amerada Pet. Corp. No. 1 Godchaux Sugars, Inc., Sec 34-15s-19e 18⅝-in 11,312 ft.; T.A.
Tide Water Asso. Oil Co. No. 2-A South Coast Corp., Sec. 34-15s-19e. 10,461 ft. 5½-in. csg. 10,253 ft.; perf. csg. 10,120-138 ft.; csg. began to leak; cmtd.; W.O.C.

Sorrento—Ascension Parish

Pan American Prod. Co. No. 16 United Ld. Co., Sec. 15-10s-4e. Spudded.
Sorrento Synd. No. 1 L. L. Bernard, Sec. 27-10s-4e. R.U.

South Houma—Terrebonne Parish

Shell Pet. Corp. No. 3 Peters, T.D. 10,316 ft. oil sd.; make D.S.T.; rec. 1 stand 36.7-gr. oil; 1 jt. oily mud; D.S.T. 10,151-60 ft.

South Roanoke—Jeff Davis Parish

Continental Oil Co. No. 1 Calcasieu Natl. Bnk., Sec. 36-10s-4w. T.D. 9,684 ft.; cutting D.P.

Valencia—La Fourche Parish

T. G. Markley and Mohawk Oil Corp. No. 1 Deusson Hrs., Sec. 100-17s-20e T.D. 6,905 ft.; fsg.; T.D. 6,737 ft.; rmg.
Pan American Prod. Co. No. 20 Harang, Sec. 8-17s-20e. T.D. 4,608 ft.; sdtrk.; drlg. sh. 4,256 ft.

Venice—Plaquemines Parish

Tide Water Asso. Oil Co. No. 5 Buras Lv. Bd., Sec. 23-21s-30e. Drlg. sh. 7,812 ft.
Tide Water Asso. Oil Co. No. 10 Manhattan Ld. & Fruit Co., Sec. 26-21s-30e. Drlg. sh.&shell 290 ft.

Villa Platte—Evangeline Parish

Continental Oil Co. No. 2 Fontenot-Ladeau, Sec. 45-3s-2e. T.D. 8,983 ft.: T.S 8,936 ft.; I.P. 304 B.P.D.; ⅛-in. ck.
Continental Oil Co. No. 3 Haas, Sec. 44-3s-2e. T.D. 10,654 ft. (cor.); P.B. 10,105 ft.; perf. csg. 10,055-85 ft.; I.P. 250 bbl. 19 hrs., ⅛-in. choke.
Continental Oil Co. No. 3 Ludeau-Haas Sec. 44-3s-2e. Drlg. sh. 9,067 ft.
Continental Oil Co. No. 2 Opelousas, Sec. 44-3s-2e. Drlg. sh. 7,350 ft.
Continental Oil Co. No. 2 Orise Deville, Sec. 46-3s-2e. Drlg. sh. 9,120 ft.
Continental Oil Co. No. 3 Orise Deville, Sec. 46-3s-2e. Drlg.
Continental Oil Co. No. 1 J. E. Vidrine, Sec. 47-3s-2e. T.D. 10,506 ft.; sdtrkd.; T.D. 10,507 ft.; tstg.
Continental Oil Co. No. 2 Vidrine, Sec. 34-3s-2e. Drlg. sh. 8,470 ft.
Texas Co. No. 2 Marman fee, Sec. 45-3s-2e. T.D. 9,047 ft.; P.B. 9,028 ft.; perf. csg. 9,022-28 ft.; tstd. S.W.

Vinton—Calcasieu Parish

N. D. Mayfield et al No. 1 Lyons, Sec. 33-10s-12e. Drlg water sd. 2,856 ft.
R. & R. Oil Co. No. 2 Vincent, Sec. 34-10s-12w. T.D. 2,343 ft.; run 7-in. csg.; no report.

West Lake Verret—St. Mary Parish

Shell Oil Co., Inc., No. 3 Jeanerette Lbr. Co. 10¾-in. csg. 2,493 ft.; drlg. sh. 6,836 ft.

Woodlawn—Jeff Davis Parish

Union Sulphur Co. No. 5 Calcasieu Natl. Bnk., Sec. 12-9s-6w. Drlg. sh. 7,638 ft.
Union Sulphur Co. No. 1 Raymond Hebert, Sec. 6-9s-5w. Drlg. sh. 1,308 ft.
Union Sulphur Co. No. 1 M. F. Johnson, Sec. 12-9s-6w. Drlg. sh. 8,530 ft.
Union Sulphur Co. No. 3 Mrs. O'Miller Sec. 7-9s-5w. Drlg.

S. LOUISIANA WILDCATS

Acadia Parish

T. T. Tolson et al No. 1 J. Turner, Sec. 25-7s-1e. T.D. 8,705 ft.; abd.
Tri Parish Drillers, Inc., No. 1 Paul Stag, Sec. 4-7s-1w. M.I. rig.

Allen Parish

Bel Oil Corp. No. 1 J. A. Bel, Sec. 22-6s-3w. Cd. gas sd. 6,257-87 ft.; S.W. sd. 6,287-97 ft.; T.D. 9,010 ft.; run 7-in. csg. 8,595 ft.; perf. csg. 8,549-52 ft.; tstd. 40 lbs. press.; rec. 18 stands S. W., drlg. mud cut with gas and dist. perf. csg. 6,917-19 ft.; tstd. S.W.; P.B. 6,004 ft.; perf. csg. 6,041-50 ft.; rec. 3 stands oil, 15 stands of oil and gas-cut mud showing S.W.; sqzd. perf.; perf csg. 6,025-36 ft.; tstd. 600 lb. pres.; rec. 4 stands drlg. mud, slight trace of dist.; sqzd. perf.; perf. csg. 6,040-50 ft.; tstd. 25 lb. pres.; dropped to 0; rec. 11 stands of fresh wtr.; 8 stands mud and sd., slightly salty; perf. csg. 7,272-92 ft.; flowing gas; ⅛-in. ck.; T.P. 2,300 lb.

Assumption Parish

Shell Oil Co. No. 1 Ellis, Sec. 66-16s-14e. Drlg. sh. 9,100 ft.

Beauregard Parish

Atlantic Ref. Co. No. 1 Lutcher Moore, Sec. 22-3s-11w. Loc.
Atlantic Ref. Co. No. 1 Rice Ld. & Lbr. Co., Sec. 22-3s-11w. Loc.
Atlantic Ref. Co. No. 1-A Rice Ld. & Lbr. Co., Sec. 22-3s-11w. T. Cook Mtn. 6,628 ft.; drlg. sh.&L. 8,003 ft.
Standard Oil Co. of Calif. No. 1 Long Bell Lbr. Co., Sec. 23-4s-9w. T. Cckfld 6,949 ft.; 9⅝-in. csg. 7,830 ft.; cd. top Wilcox sd. 9,630 ft.; showed S.W.; drlg. L.&sh. 9,901 ft.

Calcasieu Parish

Humble O. & R. Co. No. 1 Edgewood Ld. & Logging Co., Sec. 32-7s-10w. Drlg. sd. 5,643 ft.
Union Sulphur Co. No. 2 Drew Manuel Training Sch., Sec. 17-10s-11w. Drlg. sh. 6,942 ft.

Evangeline Parish

Continental Oil Co. et al No. 1 Mrs. Lillie Manuel, Sec. 33-4s-1w. T. Vicksburg 7,740 ft.; drlg. sh. 10,597 ft.

Iberia Parish

Texas Co. No. 3-B State-Vermilion Bay, Twp. 16s-5e. T. salt 5,970 ft.; B. salt 7,540 ft.; 9⅝-in. csg. 7,705 ft.; cg. sdy. L. 9,512 ft.

Iberville Parish

Houish & Thompson No. 1 Kessler & Folse, Sec. 40-11s-13e. T.D. 9,165 ft.; fsg.
Shell Oil Co., Inc., No. 1 Natalbany Lbr. Co., Sec. 18-9s-2e (tight well). T.D. 10,524 ft.; P.B. 9,100 ft.; perf. csg. 9,060-65 ft.; made sqz. job; perf. csg. 9,035-56 ft.; rec. 23 stands oil and S.W.; P.B. 9,057 ft.; tstg.

Jeff Davis Parish

R. M. Bleakie et al No. 1 Lack-Moore Co., Ltd., Sec. 29-7s-6w. 13⅜-in. csg. 65 ft.; 9⅝-in. csg. 1,123 ft.; drlg. sd. &sh. 4,490 ft.
Stanolind O. & G. Co. No. 3-B Ervin & Bishop, Lot 15, Sec. 7-9s-5w. Drlg. 1,120 ft.
Union Sulphur Co. No. 1 H. B. Tietje, Sec. 36-7s-4w. T.D. 9,220 ft.; 7-in. csg. 8,227 ft.; perf. csg. 8,051-65 ft.; swbd. S.W.; pulling screen and lnr.; P.B. 7,648 ft.; perf. csg. 7,632-46 ft.; showing S.W. and oil; P.B. 7,639 ft.; perf. csg. 7,628-38 ft.; flowed 3 bbl. fluid in 2 hrs.; 5% oil, balance S.W.

La Fourche Parish

Gulf Oil Corp. No. 1 Grandison Ld. Co., Sec. 14-20s-23e. T.D. 8,241 ft.; 9⅝-in. csg. 8,241 ft.; drlg. sh. 11,952 ft.
J. Perry Scranton No. 2 Martinez, Sec. 132-15s-17e. Drlg. sh. 6,809 ft.
Texas Co. No. 1 L.L.&E. Golden Meadows, Sec. 77-19s-21e. 9⅝-in. csg. 10,744 ft.; T.D. 12,526 ft.; P.B. 11,810 ft.; made sqze. job; perf. csg. 10,769-71 ft.; tstd. S.W.; P.B. 10,269 ft.; stk. D.S.; drlg. on junk; perf. csg. 8,975-90 ft.; tstd. dry gas, 2,750 lb. W.P.; perf. csg. 7,300-20 ft.; rec. drlg. mud; perf. csg. 7,085-7,110 ft.; make D.S.T.

Livingston Parish

Fowler & Tower No. 1 Ellis Hood, Sec. 37-7s-3e. Loc.

Orleans Parish

W. T. Burton No. 3-B Faubourg de Montluzin, Sec. 1-11s-13e. Drlg. sh. 2,860 ft.
W. T. Buton No. 1 L.&N.R.R., Sec. 18-11s-15e. T.D. 9,000 ft.; 7⅝-in. csg. 8,820 ft.; drlg. sh. 10,070 ft.
W. T. Burton No. 3 L.&N.R.R., Sec. 25-11s-14e. Loc.
W. T. Burton No. 2 State-Lake Pontchartrain, Twp. 10s-10e. Loc.

Plaquemines Parish

Gulf Oil Corp. No. 8 State P.P., Sec. 18-23s-31e. Loc.
Texas Co. No. 1 L.L.&E., Bastian Bay, Sec. 43-20s-28e. 9⅝-in. csg. 9,540 ft.; T.D. 10,662 ft.; P.B. 9,900 ft.; sdtrkd. 9,895 ft.; T.D. 12,256 ft.; abd.

Rapides Parish

Gulf States Explr. Co. No. 1 Jack Cappel, Sec. 37-4n-4w. T. Wlx. 4,185 ft.; T.D. 4,537 ft.; abd.

St. Bernard Parish

Carter, Molero & Brian, Sec. 129-14s-14e. Drlg.
Gulf Ref. Co. No. 4-State-R.R. (Lake Borgne), Twp. 12s-15e. 9⅝-in. csg. 8,161 ft.; T.D. 10,632 ft.; P.B. 9,700 ft.; rmd. to 9,658 ft.; lost core bbl.; P.B. sdtrkd. 8912 ft.; T.D. 10,528 ft.; 7-in csg. 10,494 ft.; fsg.
Vendome Pet. Co. No. 2 Kenilworth Plantation, Sec. 59-13s-14e. Drlg. sdy. sh. 8,750 ft.

St. Charles Parish

Texas Co. No. 1 L.L.&E. Paradis, Sec. 39-14s-20e. 9⅝-in. csg. 8,975 ft.; T.D. 10,787 ft.; twisted off D.S.; fsg.; C.O. hole 10,200 ft.; 7-in. csg. 10,177 ft.; perf. csg. 10,060-70 ft.; tstd. gas; sqzd. perf.; perf. csg. 9,840-50 ft.; tstd. 2,000 lb. press.; flwd. est. 5 bbl. dist. per hr.; perf. csg. 9,608-20 ft.; tstd. 2,800 lb. pres.; flwd. 8 to 10 bbl. dist. per hr.; prep. to P.B. 9,503 ft.; perf. csg. 9,485-9,503 ft.; flwd. 6 bbl. 49-gr. dist. per hr.; ¼-in. ck. on D.S.T.; 2,600 lb. pres.; sqzd. off perf.; perf. csg. 8,895-8,730 ft.; flowed ⅛ bbl. dist. per hr.; ¼-in. choke; 3,000 lb. W.P.; will drill out and comp. at 9,815-9,915 ft.

St. Landry Parish

Deep Rock Oil Co. No. 1 B. Babineaux, Sec. 39-8s-4e. Drlg. sh. 6,976 ft.

St. Martin Parish

Texas Co. No. 12 St. Martin, Sec. 21-8s-7e. Spudded.

St. Mary Parish

Acadian Prod. Co. No. 1 Robichaux, Sec. 27-13s-9e. R.U.R.
Perry S. Cooney No. 1 A. W. Allain, Sec. 46-13s-9e. Drlg. sh. 1,215 ft.

St. Tammany Parish

Honey Island Dev. Corp. No. 1 W. C. Forbes, Sec. 33-7s-15e. T.D. 100 ft.; 20-in. csg. 87 ft.

Terrebonne Parish

Texas Co. No. 1 Continental Ld. & Fur Co., Sec. 29-18s-14e. O.W.D.D.; T.D. 12,483 ft.; prep. to test 9,765-82 ft.; perf. csg. 9,680 ft.; tstd. S.W. on D.S. T.; P.B. 9,590 ft.; perf. csg. 9,558-70 ft.; tstd. S.W.; perf. csg. 7,270-85 ft.; rec. mud and S.W.; abd.
Texas Co. No. 2 State-Coon Point, Twp. 23s-14e. 13⅜-in. csg. 1,900 ft.; T.D. 6,716 ft.; abd.

Vermilion Parish

La. Ld. & Expln. Co. No. 1 La. Fur. Co., Sec. 21-15s-1e. Drlg. sd.&sh. 9,038 ft.

Vernon Parish

W. T. Burton No. 1 W. T. Burton Mineral fee, Sec. 32-1n-6w. Drlg. sh. 5,510 ft.
Nat Hunter et al No. 1 W. T. Burton fee, Sec. 13-2n-5w. M.I.M.

West Feliciana Parish

McKay et al No. 1 James Montgomery. Loc.

TEXAS

Week Ending June 17

GULF COAST FIELDS

Old Ocean—Brazoria County

Harrison & Abercrombie No. 2 Larsen et al, C. Breen Sur. 9⅝-in. csg. 7,000 ft.; cg. sh.&L. 10,136 ft.
Harrison & Abercrombie No. 1 C. W. Markle, Polly & Chance Sur. 9⅝-in. csg. 7,016 ft.; T.D. 11,079 ft.; abd.
Harrison & Abercrombie No. 2 Osburn, C. Breen Sur. 9⅝-in. csg. 7,000 ft.; drlg. sd.&sh. 9,036 ft.
Mid-Continent Pet. Corp. No. 1 Wm. Chenault, C. Breen Sur. Drlg. 6,430 ft.
Sun Oil Co. No. 1 Borsodi-Elkins, C. Breen Sur. 18⅝-in. csg. 121 ft.; 9⅝-in. csg. 7,010 ft.; T.D. 10,615 ft.; rng. csg.
Sun Oil Co. No. 3 Campbell, C. Breen Sur. Loc.

Cedar Point—Chambers County

Standard Oil Co. of Calif. et al No. 46-120 State. 10¾-in. csg. 1,610 ft.; drlg. sh. 5,037 ft.

Seabreeze—Chambers County

Sun Oil Co. No. 2 Hoffman, T.&N.O. Sur. No. 131. R.U.

West Columbia—Brazoria County

Texas Co. No. 32 Abrams, G. Tennille Sur. 10-in. csg. 1,170 ft.; drlg. sh. 5,726 ft.

Thompson—Fort Bend County

H. M. Naylor No. 1 W. L. Moody, H. Chrisman Sur. Cd. sd. 7,736-71 ft.; tstg.
H. M. Naylor No. 4 Musselman, H. Chrisman Sur. T.D. 7,700 ft.; run csg.
H. M. Naylor No. 1 M. W. Shanks, Horatio Chrisman Sur. R.U.
H. M. Naylor No. 5 Musselman, H. Chrisman Sur. Bldg. rd.

Dickinson—Galveston County

Pure Oil Co. No. 1 Franz Kohfeldt et al, T. W. Johnson Sur. T.D. 8,706 ft.; 5½-in. csg. 8,505 ft.; perf. csg. 8,495-8,505 ft.; flowing gas and dist.

League City—Galveston County

Phillips Pet. Co. No. 1 Bryan, Perry & Austin Sur. R.U.&S.D.
Phillips Pet. Co. No. 1 Esperson-Phillips, S. F. Austin Sur. Drlg. sh. 8,767 ft.
Phillips Pet. Co. No. 5 Bertha Lobit Wilson, Perry & Austin Sur. 10¾-in. csg. 2,541 ft.
Phillips Pet. Co. No. 3 Lobit Wilson, Perry & Austin Sur. Drlg. sh. 3,220 ft.
Phillips Pet. Co. No. 4 Lobit, Perry & Austin Sur. Cg. sdy. sh. 8,842 ft.
Phillips Pet. Co. No. 2 Stewart Title Co., S. F. Austin Sur. T.D. 9,270 ft.; 7-in. csg. 9,180 ft.
West Prod. Co. No. 1 fee, Lot 2, Blk. 5, Perry & Austin Sur. Loc.

Aldine—Harris County

Earl Hankamer No. 1 W. B. Rowland, Lots 42 and 43, E. Farias Sur. T.D. 7,284 ft.; 5½-in. csg. on bottom; W.O.C.

Bammel—Harris County

Hamill & Hamill No. 1-D Zapp, J. Farwell Sur. T.D. 6,800 ft.; abd.

Clear Lake—Harris County

Humble O. & R. Co. No. 4 Hutcheson, Wm. Dobie Sur. T.D. 5,844 ft.; recemented csg.; W.O.C.

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Clinton—Harris County

Stanolind O. & G. Co. No. 2 Angelo Cande Lari Reels & Trobough Sur. Drlg. sh.&L. 2,300 ft.
Stanolind O. & G. Co. No. 2 Edwards, Reels & Trobough Sur. Drk.

Eureka—Harris County

Jack Frazier No. 1 W. T. Helberg, H. Reinerman Sur. R.U.
J. Frazier No. 7 Hogg Bros., J. Reinerman Sur. T.D. 7,722 ft.; 5½-in. csg. on bottom.
M. G. Hansbro No. 1 Beall, H. Reinerman Sur. T.D. 8,256 ft.; fsg.
Houston Oil Co. No. 3 Helberg & Lackner, J. Reinerman Sur. Loc.
Means & McGehee No. 1-F Laura Lackner. T.D. 7,735 ft.; W.O.C.
Tide Water Asso. Oil Co. No. 2-B Lackner, H. Reinerman Sur. T.D. 8,090 ft.; W.O.C.

Fairbanks—Harris County

Kirby Pet. Co. et al No. 1 Hillebrenner, T. M. Dorsett Sur. 9⅝-in. csg. 1,300 ft.; drlg. sh. 3,520 ft.

Friendswood—Harris County

Humble O. & R. Co. No. 21-B Humble-West, A. Whitlock Sur. Drlg. sh.&L. 4,764 ft.
Humble O. & R. Co. No. 25-B Humble-West, Luke Hemenway Sur. Drlg. sh. 5,036 ft.
Humble O. & R. Co. No. 29-B fee, Luke Hemenway Sur. Drlg. sh.&L. 4,637 ft.

South Houston—Harris County

Commerce Oil Co. No. 1 O. R. Staiti, Callahan & Vince Sur. Drk.

Francitas—Jackson County

Crosby Drlg. Co. No. 1 Hale & Allee, Green Sur. R.U.

Cheek—Jefferson County

Humble O. & R. Co. No. 6 Broussard, M. Grange Sur. Loc.
Humble O. & R. Co. No. 1-B Steinhagen. Wm. Carr Sur. T.D. 7,927 ft.; 7-in. csg. 7,912 ft.

Clam Lake—Jefferson County

Shell Oil Co., Inc., No. 3 McFaddin, McFaddin Sur. Drlg. sh. 3,267 ft.

La Belle—Jefferson County

Sun Oil Co. No. 5 Broussard-Hebert, T. &N.O. Sur. No. 207. 18⅝-in. csg. 130 ft. T.D. 7,650 ft.; cmtd. 9⅝-in. csg. on bttm.; T.D. 9,504 ft.; 7-in. csg. 9,500 ft.; tstg.

Esperson—Liberty County

General Crude Oil Co. No. 3-B Esperson, A. McNell Sur. Drlg. sh. 6,970 ft.

Hardin—Liberty County

Gulf Oil Corp. No. 4 Cessna, H. B. Johnston Sur. R.U.

North Markham—Matagorda County

Ohio Oil Co. No. 2 Carlson. I.&G.N. Sur. No. 2. 10¾-in. csg. 1,472 ft.

Conroe Field—Montgomery County

E. I. Thompson, Tr., No. 1 W. D. Granger, T.&N.O. Sur. No. 14 (Wilcox test SE. edge of prod.). 16-in. csg. 82 ft.; 10¾-in. csg. 1,800 ft.; drlg. sh. 7,436 ft.

Orange—Orange County

Gulf Oil Corp. No. 10-A Winfree, Wm. Dyson Sur. Drk.
John Mayo No. 1 M. J. Williams, Dyson Sur. R.U.

Ace—Polk County

Patrick-Tyrell Drlg. Co. No. 1 Kirby-West, P. A. Sublett Sur. T.D. 7,846 ft.; perf. csg. 7,810-20 ft.; I.P. 12 B.P.H.; ¼-in. ck.
Dick Schwab No. 1-C Kirby-West Lbr. Co., G. A. Thomas Sur. Loc.
Shell Pet. Corp. No. 2 Doucett, P. A. Sublett Sur. Loc.

Segno—Polk County

Gulf Oil Corp. No. 4 Quinn, A. Morales Sur. R.U.
Gulf Oil Corp. No. 1 Ragan, I.&G.N. Sur. No. 15. R.U.
Gulf Oil Corp. No. 17 Wing, I.&G.N. Sur. No. 14. Drlg. sh. 7,041 ft.
Gulf Oil Corp. No. 19 Wing, I.&G.N. Sur. No. 14. Drlg. sh.&L. 7,153 ft.
Humble O. & R. Co. No. 13-B Kirby Lbr. Co., P. Garcia Sur. Bldg. rd.
Humble O. & R. Co. No. 14-B Kirby Lbr. Co., M. Victor Sur. S.D. 2,197 ft.

Orange—Port Neches

Texas Co. No. 15 Kuhn, A. E. Hall Sur. Drk.
Texas Co. No. 7 W. H. Stark, M. E. Hall Sur. T.D. 5,945 ft.; 7-in. csg. 5,930 ft.

Spurger—Tyler County

Republic Prod. Co No. 21 fee, N. Hurd Lge. 9⅝-in. csg. 1,807 ft.; drlg. sh. 6,786 ft.

GULF COAST WILDCATS

Brazoria County

Crosby Drlg. Co. No. 1 H. A. Paine, A. G. Reynolds Sur. R.U.
Fabriguze et al No. 1 Freeport Sulphur, Stephen F. Austin Sur. (Bryan Mound) M.I.M.
Hamman Explin. Co. No. 1 Darrington, Achilles McFarland Sur. 10¾-in. csg. 1,200 ft.; 7-in. csg. 8,887 ft.; T.D. 8,917 ft.; perf. csg. 8,250-8,300 ft.; flwd. 15 B.P.H.; ¼-in. ck.; wtr. and mud broke in; reperf. csg. 8,650-8,750 ft.; sqzd. perf.; trying to sdtrk.
Hamman Explin. Co. No. 2 Darrington State Prison Farm, F. Bingham Sur. W.O. rig.
Glenn McCarthy No. 1 J. C. Carr, J. D. Valderas Sur. Bldg. road.
Glenn McCarthy No. 1 Houston Farm Dev., James P. Perry and E. Austin Sur. No. 7. Drlg. 6,606 ft.
Smith & McDannald No. 1 Slocum, Henry Austin Sur. Drlg. sdy. L. 6,932 ft.

Chambers County

Geo. Anderson No. 1 Julia Casey, W. D. Smith Sur. Loc.
Plymouth Oil Co. No. 1 Wilburn, Wm H. Moore Sur. 10¾-in. csg. 1,994 ft drlg. sh. 5,614 ft.
L. D. Roberts No. 1 C. H. Lanz, T.&N. O. Sur. No. 35. R.U.

Fort Bend County

O. J. Martin et al No. 1 W. B. Blakely, J. Frederick Sur. Drk.
Superior Oil Co. No. 1 Shirie Beard et al, H.&T.C. Sur. No. 111. 10¾-in. csg. 1,230 ft.; drlg. sh. 6,626 ft.
Woodland Oil Co. No. 1 Henrietta Berg et al, H.&T.C. Sur., Sec. 25. Drlg. sh. 6,712 ft.

Galveston County

Sun Oil Co. No. 1 State, East Galveston Bay. M.I. barge.

Hardin County

Norcoff Corp. No. 1 Caswell, B.B.B.&C. Sur. No. 72 (E flank Saratoga dome). T.D. 4,900 ft.; fsg.

Harris County

John Deering No. 1 Ridgeview Farms, Duckworth Sur. 10¾-in. csg. 800 ft.; T.D. 6,533 ft.; abd.
Housh & Thompson et al No. 1 J. L. Krey, B. Herra Sur. R.U.
J. H. Woodard, Jr., No. 1 Miller Est., John Skorupski Sur. S.D. 5,133 ft.

Jackson County

L. Glasscock No. 1 J. H. Drummond, R. Musquiz Sur. T.D. 5,543 ft.; 7-in. csg. 5,528 ft.; tstg.
J. Mayo et al No. 1 J. H. Tucker, R. Musquiz Sur. R.U.
Moore & Ahern No. 1 Victoria Ld. & Loan Co., P. Scott Sur. Loc.
T. C. Young and Whitman Drlg. Co. No. 1 R. J. Stephens, R. Musquiz Sur. Cg. sh. 5,150 ft.

Jasper County

Bob Milner et al No. 1 Cartwright, E. O. LeGrande Sur. R.U.

Jefferson County

I. E. Harwell No. 1 State, Gulf of Mexico. T.D. 5,840 ft.; D.S. stk.; pulled in two; S.D.
Hebert & Smith et al No. 1 L. D. Fontenot, Sec. 17, H.T.&B. Sur. T.D. 8,755 ft.; 5½-in. csg. 8,007 ft.; oil sds. 7,906-20 ft., 7,870-06 ft., 6,730 ft.
Humble O. & R. Co. No. 15-B McFaddin Beach State, Gulf of Mexico. 660 ft. NW of No. 13-B. Drlg. sh. 4,120 ft.

Liberty County

Stanolind O. & G. Co. No. 1 E. M. Flowers, I.&G.N.R.R. Sur. 10¾-in. csg. 1,588 ft.; drlg. sh.&L. 9,080 ft.

Matagorda County

Continental Oil Co. No. 1 Savage, Daniel Yeamans Sur. T. sd. 3,842 ft.; well blew out; killed; drlg. L. 5,651 ft.

Polk County

Jack Frazier et al No. 2 Bergman, A. Viesca Sur. Drk.

Wharton County

Cockburn Oil Co. No. 1 Sam Hamburger, W.C.R.R. Sur. 65. S.D. 6,012 ft.; abd.
Moore & Ahern No. 1 Maurits Beaty, Seale, Forwood Sur. T.D. 5,600 ft.; abd.

S. W. TEXAS WILDCATS

Bee County

Dirks Bros. No. 1 Page, Thos. K. Pilkington Sur. Drlg. sh. 2,018 ft.

Bell County

M. M. Gordon No. 1 Steele, Oliver T. Tyler Sur. S.D. 1,201 ft.
G. P. Shelton et al No. 1 Nelson, Michael Griffin Sur. S.D. 1,208 ft.

Bexar County

E. D. Harris No. 1 Schroeder, Luke Bust Sur. No. 37. Spudded.

Blanco County

H. C. McCart No. 1 Geo. Lester, Newton Carson Sur. No. 34. T.D. 365 ft.; fsg.

Brooks County

Magnolia Pet. Co. No. 2 Denman, Jose Marcelo Hinojosa gr. Drlg. sh. 4,270 ft.

Cameron County

Salviejo and Pure Oil Co. No. 1 Gatewood and Dewberry, San Martin gr. Drlg. sh. 5,780 ft.

Duval County

W. L. Catlin et al No. 1 Louis Escapule. J. Poitevent Sur. No. 73. Loc.
Wm. Nichols et al No. 1 Tom Graham, Cuadrilla Irrg. Sur., Sec. 572, T.D. 4,800 ft.; rec. 630 ft. P.L.O.; D.S.T. 4,782-98 ft.; 5½-in. csg. on bttm.; reperf. csg. 4,784-90 ft.; flowing oil and W.W.; ⅛-in. ck.
Parr Oil Co. et al No. 1 Villareal, Antonio Andres Garcia San Andres gr. No. 24. 10¾-in. csg. 500 ft.; T.D. 6,015 ft.; abd.
Rowe & Scheig No. 1 Well, B.S.&F. Survey No. 567. Drlg. sh. 2,076 ft.
W. A. Wagner No. 1 D. J. Weikel, John H. Gibson Sur. No. 497. R.U. and S.D.
R. L. Wheelock No. 1 Serner, Sec. 290. T.D. 4,805 ft.; abd.

Edwards County

O. L. Alderfer and C. W. Davis No. 1 J. A. Earwood, C.C.S.D.&R.G.N.G.R.R. Sur., Sec. 158. S.D. 125 ft.
O. C. Reynolds et al No. 1 Paul Turney, C.C.S.D.&R.G.N.G. Sur., Sec. 164. Drlg. L. 60 ft.

Frio County

Wilcox O. & G. Co. No. 1 R. H. Harris, Hooper & Wade Sur. No. 3. R.U.

Goliad County

Cron & Gracey et al No. 1 O. G. Dreier, B.S.&F. Sur. No. 7. Set 1,320 ft. of 7-in. lnr. at 5,190 ft.; T.D. 5,885 ft.; set 812 ft. of 5-in. lnr.; perf. 5,566-70 ft.; tstd. S.W.; W.O.; perf. csg. 5,866-70 ft.; tstd. S.W.; prepare to reperf. csg.

Guadalupe County

Burton, Garvin & Womack No. 1 Henry Weil, E. De los Santos Coy Sur. No. 93. L. O.S. 200-10 ft.; 6-in. csg. 210 ft. acd.; cmt. failed to hold; recmtd.; swbg. 5 B.O.P.D.; prep. to deepen.
C. L. Felty No. 1 Warneke, Vicente Duran Sur. No. 4. Drlg. 786 ft.
John Hueners No. 1 Boecker, John Baker Sur. No. 26. S.D. 1,013 ft.
Trio Oil Co. No. 1 Jahns Herman, Jose K. Davis Sur. No. 12. T.D. 3,049 ft.; abd.

Hidalgo County

Shary Maddox No. 1 A. C. Neal, Santa Anita gr. Drlg. 6,355 ft.
Pantano Pet. Co. No. 1 R. E. Harding, La Mestena Rnh. subd. (La Blanca field). Drlg. 3,320 ft.
Wheelock & Smith No. 1 Yturria Town & Imp. Co., Anastacio Villareal Por. No. 43. Cg. 3,990 ft.

Jim Hogg County

Imperial Oil Co. No. 1 Jose M. Gutierrez, H. Rodriquez Sur. No. 142. 10-in. csg. 40 ft.
Johnson & Robinson No. 1 Palacios, Mary Montgomery Sur. T.D. 3,519 ft.; 5½-in. csg. 2,900 ft.
Magnolia Pet. Co. No. 1 Ysaquirre et al, "Agua Nueva de Abajo," J. M. Ramirez Sur. M.I.R.
Phillips Drlg. Co. No. 1 Allen, H.&G.N. Sur. No. 21. Cg. S.W. sd. 3,391 ft.

Jim Wells County

Bridwell Oil Co. No. 1 Beasley La. Trinidad gr. Drlg. sh. 2,020 ft.
Tom Graham No. 1 Mull Hrs. of Geo. W. Main No. 30 (Camada field). Cg. sh. 6,447 ft.
H. H. Howell No. 1 W. K. Hoffman, Lavaca gr. T.D. 7,025 ft.; 5½-in. csg. 7,035 ft.; perf. csg. 6,860-66 ft.; swb. S.W.; P.B.; perf. csg. 5,818-28 ft.; rec. mud, oil and S.W.
Magnolia Pet. Co. No. 1 J. O. Maun, Lot 6, Blk. 11. Drlg. 6,210 ft.
Pettus O. & R. Co. No. 1 R. Y. Garcia, S.A.&M.G. Sur. Loc.
W. R. Quinn et al No. 1 D. M. and Fritz Pundt, T. C. Wright Sur. S.D. 4,770 ft. 7-in. csg. 4,770 ft.; cg. 4,836 ft.
Randon Oil Co. et al No. 1 Tulley, W. A. O. Wadsworth Sur. T.D. 5,890 ft.; S.D.
Reese & Dunn et al No. 1 Smith, La. Trinidad gr. Cd. O.S. 5,237-96 ft.; cg. ahead.
Shell Pet. Corp. No. 1 2 Von Blucher, Lucinda Best Sur. T.D. 8,000 ft.; abd.
Smith & Storey No. 1 Shaeffer, Stanley Welch Sur. No. 90. S.D. 2,635 ft.
Texas Gulf Prod. Co. No. 1 E. E. Miller, Benito Lopez De Jaen Sur. 5½-min. D.S.T. 5,093-5,101 ft.; 350 lb. pres.; cd. O.S. 5,150-55 ft.; D.S.T. rec. 1,000 ft. 38-grav. oil, 1,000 lb. W.P.; cg. sdy. sh. 5,189 ft.

Karnes County

Paul Meador No. 1 Ruhman, J. Richardson Sur. Drk.

Kendall County

C. M. Dewey No. 2 Seidensticker, R. Davis Sur. No. 20. S.D. 714 ft.
Fred Turner et al No. 1 Lindner, J. Brown Sur. No. 619. T.D. 1,500 ft.; abd.

Kenedy County

Humble O. & R. Co. No. 3 Kenedy rnh.-X, Salinas Sur. Drlg. sh. 5,926 ft.

Kimble County

W. S. Kelly No. 1 A. L. Bierchwale, D. Lloyd Sur. S.D. 95 ft.

La Salle County

Eugene Garner No. 4 Yeager, John H. Gibson Sur. No. 37. R.U.

Lee County

Fred Pederson et al No. 1 Brown, David Hudson Sur. T.D. 6,404 ft.; acd.; R.U pmpd. 100 bbls. fluid; 36 hrs.; 3 bbls oily emulsion, bal. S.W.; cd. L. 6,422-29 ft.; cd. por. L., oil odor; prep. to make D.S.T.

Live Oak County

L. W. Stieren No. 3 Lange, Thos. Adams Sur. T.D. 1,497 ft.

McMullen County

Gilcrease Oil Co. No. 1 Shiner, Jose Aldrete Sur. No. 14. Cg. sd. 1,102 ft.
F. H. Golhke No. 1 E. L. Miles, J. Poitevent Sur. M.I.M.
R. P. Ricker et al No. 1 La Chusa Ld. Co. Jugo Nadler Sur. 52. Cg. 1,567 ft.; no report.
C. D. Scarborough and Bigiane No. 1 Paul Foyt, James Garner Sur. No. 6 S.D. 1,228 ft.; 7-in. csg. 1,251 ft.

Medina County

Victor Ziegler No. 1 Paul Haby, Wm. G. Still Sur. No. 1. S.D. 1,000 ft.

Milam County

H. R. Edwards et al No. 2 Camp, D Robertson Sur. T.D. 1,873 ft.; 5½-in. csg. 1,873 ft.; flowing sulfur wtr.

Nueces County

E. A. Graham et al No. 1 Sam Taylor, D.M. Oliver Sur., Sec. 465. Drlg. sh. 3,820 ft.; tstg.
Mills Bennett Prod. Co. No. 1 Poenisch, E. Villareal Sur. R.U.
Texas Conservative Oil Co. No. 1-B Bock, Geo. H. Pauls subd. of Driscoll rnh. Cd. gas sd. 3,808-36 ft.; T.D. 3,835 ft.; perf. csg. 3,809-17 ft.

Refugio County

Hewitt & Daugherty No. 2-A J. M. Aldrete Sur. Drlg. sh. 2,250 ft.
Humble O. & R. Co. No. 3 Laura Thomas, Patrick Downey Sur. Cg. sd. 5,916 ft.
Phillips Pet. Co. No. 1 N. S. Hundson, T. Antonio Gallan Sur. Loc.
Quintana Pet. Corp. No. 10 Williams, C. E.P.I.&M. Co. Sur. T.D. 6,220 ft.; perf. csg. 5,870-80 ft.; flwd. O.&S.W.; tstg.; no report.

San Patricio County

A. O. Morgan No. 1 T. G. Benson, Antonio Gozeaschochechea Sur. T.D. 5,458 ft.; abd.
Seaboard Oil Co. No. 1 Person, A.B.&M. Sur. No. 6. T.D. 6,348 ft.; 5-in. csg. 5,675 ft.; flwd. 49 B.P.D.; ¼-in. ck.; T.P. 350 lb.; C.P. 750 lb.; grav. 35.5; perf. csg. 5,260-68 ft.

Starr County

Herbert Aid No. 1 J. G. Escobas, J. J. Gutierrez Porcion 72. Loc.
Baldridge & Vessels No. 1 W. I. Cameron, Geo. W. Smith Sur. No. 228 (Rincon field). R.U.
Banks, Miller Oil Co. No. 1 McLean, Unit 3, Valle Del Rico Rio Grande subd., J. B. Villareal Porc. 75. Drlg. 500 ft.
C. L. Foster No. 1 H. Garza, Juan Salinas, Porc. No. 71. S.D. 83 ft.
Liberty Oil Co. No. 1 Bass, S.K.&K. Sur. No. 71. S.D. 150 ft.
Lynes & Robertson No. 1 Villareal, C.C. S.D.&R.G.N.G.R.R. Sur. No. 241. Loc.
W. L. Stephens and Vernon Clopton, Juan Jose de la Barza Falcon Sur. T.D. 1,702 ft.; abd.
W. W. Zimmerman No. 3 Tijerina, H. E.&W.T.R.R. Sur. No. 299. S.D. 600 ft.

Travis County

Oscar Raesz et al No. 1 J. W. Swahn, Phillips McElroy Sur. No. 16. S.D. 566 ft.
Williams & Bick No. 2 Montpelier Savings Bnk., C. Barker Sur. No. 38. Drlg. sh. 65 ft.; no report.

Webb County

J. M. Anderson et al No. 1 Frost, C.C.S. D.&R.G.N.G.R.R. Sur. No. 17. Loc.
F. J. Hines No. 1 Bruni, M. T. Tippin Sur. R.U.
Magnolia Pet. Co. No. 5 Yolpe-Benavides, B.S.&F. Sur. No. 695. T.D. 2,466 ft.; oil sd. 2,458-66 ft.; swbg.; showing small amt. of oil, mostly fresh wtr.; 7-in. csg. 2,456 ft.
Gordon Rouse No. 1 Withers, G. B. Withers Sur. No. 52. S.D. 1,010 ft.
Rowe & Scheig No. 1 Kirkpatrick, C.C. S.D.&R.G.N.G.R.R. Sur. No. 59. Loc.

Willacy County

Midwest Royalty Co. No. 1 Dayton, San Juan Decarriutas San Matias subd., Sh. No. 47. 10¾-in. csg. 2,370 ft.; drlg. sh. 8,569 ft.

Williamson County

W. O. Caffey No. 1 J. Seggern, Hardy Pace Sur. S.D. 1,067 ft.

Wilson County

John F. Camp No. 1 Bundrick, H.&T.C. R.R. Sur. No. 111. 10-in. csg. 272 ft.; drlg. sh. 2,810 ft.

Zapata County

John F. Camp No. 1 Hinnant, R. Hinnant Sur. 72. 10-in. csg. 41 ft.; T.D. 2,100 ft.; abd.
Freeman and Smith No. 1 Carlos Vela, Porc. No. 20. T.D. 2,508 ft.; abd.
Joe Martinez No. 2 Bruni, J. V. Borego gr. R.U.

WEST TEXAS WILDCATS

Andrews County

Richmond Drlg. Co. No. 1 University, Sec. 25, Blk. 12, Univ. Sur. Drlg. 3,430 ft.
J. W. Tripplehorn No. 1 M. A. Thornberry, Sec. 2, Blk. 42-A. S.D. 4,480 ft.

Brewster County

H. D. Wilcox No. 2 Kokernot, Sec. 23, Blk. C, J. V. Massey Sur. Drlg. 1,175 ft.

Cochran County

T. G. Shaw, Tr., No. 1 Carrie S. Dean, Lge. 94, Swbg. 12 B.F.P.H. at 5,001 ft.; swbg. and tstg. 5,005 ft.

Crane County

P. A. Christian No. 1 M. F. Stephenson, Cert. 2044, W. H. Bates Sur. No. 40. Drlg. 3,193 ft.

Gulf Oil Corp. No. 5 M. B. McKnight, Sec. 1, Blk. 21-B, P.S.L. Sur. Est. 51 B.O.P.D.; drlg. 3,968 ft.

Crockett County

J. S. Pittman No. 1 Corbett-Humble, Sec. 15, Blk. 2-B, G.C.&S.F. Sur. Drlg. 15 ft.

Steel Dust Oil Co. No. 1 Geo. D. Atwood, Sec. 9, Blk. P.P., T.C.R.R. Sur. Spdg.

Crosby County

Gulf Oil Corp. No. 1-C Swenson, Sec. 96, Blk. 2, H.&G.N. Sur. S.D.R. 4,900 ft.

Culberson County

Quito Oil Co. No. 1 Cameron Lbr. Co., Sec. 24, Blk. 81, P.S.L. Sur. S.D.R. 945 ft.

Dickens County

Bond D. Jones No. 1 Ford et al, I.&G.N. Sur. S.D. 3,662 ft.

Humble O. & R. Co. No. 1 Matador Ld. & Cattle Co., Sec. 26, Blk. 1, Shock & Arnold Sur. T.D. 7,074 ft.; drlg. plug 6,925 ft.; P.B. 6,133 ft.; W.O.C.

Ector County

Barnes-Conklin & White No. 1 T.&P. Lds., Sec. 28, Blk. 45, T.&P. Sur. Drlg. 4,423 ft.

R. H. Gill No. 1 J. E. Parker, Sec. 12, Blk. 45, T.&P. Sur. W.O.R. 145 ft.

Lee Drlg. Co. No. 1 J. L. Johnson, Sec. 5, Blk. 42, T.&P. Sur. Tstg. 4,309 ft.

Sloan & Zook No. 1 J. L. Johnson, Sec. 34, Blk. 43, T.&P. Sur. Drlg. 3,747 ft.

El Paso County

Tri-State Oil Co. No. 1 Kinkel, R.U.S.T.; to P.B. and sdtrk.; T.D. 3,571 ft.; sidetracking hole 1,925 ft.; drlg. by 4-in. at 1,890 ft.

Gaines County

Stanolind O. & G. Co. No. 1 J. B. Rayner, Sec. 3, Blk. 30-C, P.S.L. Sur.; 6,000-ft. test. Loc.

Glasscock County

J. R. Petty No. 1 Joe Blake, Sec. 163, Blk. 29, W.&N.W. Sur. Prep. D.D. 1,437 ft.

Shell Pet. Corp. No. 1 A. Neal, Sec. 38, Blk. 33, T.&P. Sur. Drlg. 3,223 ft.

Howard County

Ooley & McQuain No. 1 O'Daniels, Sec. 39, Blk. 30, T.&P. Sur. C.O. 2,720 ft., D.&A. 3,149 ft.

Hudspeth County

Haymon Krupp Oil & Ld. Co. No. 1 Thaxton, SE¼ Sec. 34, Blk. 74, Twp. 6, S.G. 6,340-45 ft.; swbg. 6,402 ft.

Haymon Krupp No. 1 Briggs, Sec. 24, Blk. 73, Twp. 7, T.&P. Sur. Drlg. 5,368 ft.

Lynn County

John L. Baldridge No. 1 Alma Lbr. Co., Sec. 151, H.E.&W.T. Sur. S.D.O. 4,450 ft.

Pecos County

L. Cain No. 1 Masterson-Lehn, Sec. 7, Blk. 10, H.&G.N. Sur. Rng. 8-in. 675 ft.

Greene & Goodman No. 1 Masterson, Sec. 105, Blk. 10, H.&G.N. Sur. Drlg. 207 ft.

Leidecker & Cain No. 1 M. M. Lehn, Sec. 71, Blk. 10, H.&G.N. Sur. Csg. 1,743 ft.; flwg. 20 B.O.; 24 hr.; C.O. 1,783 ft.

Lloyd-Penn & Hargraves No. 1 H. E. Bonebrake, Sec. 110, Blk. 8, H.&G.N. Sur. Spd. and S.D.

O. E. Schade No. 1 Otis Garrett, Sec. 59½, Blk. 8, H.&G.N. Sur. Tstg. est. 35 B.O.P.D.; T.D. 2,290 ft.; swbg. est. 20 B.O.P.D.; 5 B.W.P.D.; tstg. on pmp.

Superior Oil Corp. No. 1 V. W. Crockett, Sec. 5, Blk. 110, T.C.R.R. Sur. C.O. 1,459 ft.

S. Thompson No. 1 Elsinore Cattle Co., Sec. 54, Blk. D, G.C.&S.F. Sur. Rig burned; dropped bailer in hole; S.D.O. 7,342 ft.

J. C. Trees No. 1 fee, Sec. 63, Blk. 3, H.&G.N. Sur. Tstg. on pmp.; est. 5 B. O.P.D. and 5 B.W.P.D.; S.D.O. 2,359 ft.

C. W. Williams No. 1 J. Eaton, Sec. 1, Blk. 203, J. H. Handy Sur. Drlg. 2,708 ft.

C. W. Williams No. 1 T.&P. Ld., Sec. 95, Blk. 3, T.&P. Sur. Drlg. 1,720 ft.

Presidio County

L. C. Brite No. 4 fee, Sec. 113, Blk. 12, G.H.&S.A. Sur. S.D.O. 5,602 ft.

Marfa Oil Co. No. 1 Fischer ranch, Sec. 31, Blk. 8, G.H.&S.A. Sur. M.I.M.

H. D. Wilcox No. 2 Jones-Coffield, Sec. 308, Blk. 4, H.&T.C. Sur. C.O. 1,840 ft.

Reeves County

Artie Baker No. 1 J. W. Grider, Sec. 31, Blk. 58, P.S.L. Sur. S.D.R. 450 ft.

Schleicher County

Lone Star Gas Co. No. 1 Bert Page, Sec. 30, Blk. L, G.H.&S.A. Sur. Flwd. 65 B.O.P.D.; T.D. 5,746 ft.

Shell Oil Co., Inc., No. 1 Page, Sec. 41, Blk. L, G.H.&S.A. Sur. Drlg. 18 ft.

Scurry County

J. B. Stoddard No. 1 R. O. McClure, Sec. 142, Blk. 97, H.&T.C. Sur. Drlg. 1,725 ft.

H. C. Wheeler No. 1 M, Sims, Sec. 141, Blk. 97, H.&T.C. Sur. C.O. 2,509 ft.

Stonewall County

Forest Dev. Co. and King Drlg. Co. No. 1 Moreland, Sec. 183, Blk. D, H.&T. C. Sur. Drlg. 4,859 ft.

Terrell County

Shirley, Lanham & Blakeney No. 1, Sec. 45, Blk. 2-B, C.C.S.D.&R.G.N.G. Sur.; 2,500-ft. test. S.D. csg. 268 ft.

Tom Green County

Lynn & Cobb No. 1 I. B. Cox, Val. Mueller Sur. No. 176. S.D. 368 ft.

Roush & Steward No. 1 Pugh, James Eldridge Sur. No. 73. D.&A. 194 ft.

Dan Short et al No. 1 J. G. Davidson, NW part of Lovie P. Moore Sur. S.D. O. 1,622 ft.

Southern Cross No. 1 Upton & Upton, Sec. 20, Blk. A, A.B.&M. Sur. Prep. U.R. 1,691 ft.

Spinner No. 1 Reed, Mason Ferry Ranch Sur. S.D.O. 5,803 ft.; tools out of hole.

Yoakum County

W. A. Hudson No. 1 J. D. Webb, Sec. 545, Gibson Sur. P.B. 1,660 ft.; to test.

Shell Pet. No. 1 Waples-Platter, Sec. 616, Tstg. 5,380 ft.; hole fills at rate of 100 ft. per hr.; making 1 bailer of wtr. per hr.; P.B. 5,312 ft.; pmpg. 145 B.O. P.D., 30% S.W.; prep. P.B. to 5,212 ft.

TEXAS PANHANDLE

Armstrong County

Holmes, Newblock & Haley No. 1 Ed Moore, Sec. 319, Blk. 4-B, H.&G.N. Sur. Drlg. 525 ft.

Castro County

English et al No. 1 Gundlach, NW¼ Sec. 145, Blk. 6-M, S.K.&K. Sur. Loc.

Collingsworth County

Johnson No. 1 Taylor, Sec. 10-17, H.&G. N. Sur. S.D. 875 ft.

Gray County

Products O. & G. Co. No. 1 Mason Davis, Sec. 23, Blk. 23-M, H.&G.N. Sur. Loc.

Roberts County

E. J. Dunigan, Jr., No. 1 Ledrick, Sec. 34, Blk. C, G.&M. Sur. Drlg. 3,712 ft.

E. C. TEXAS WILDCATS

Angelina County

Ginter Bros. and Jones No. 6 Copes Hrs., J. Morin Sur., 3 mi. E of Dibol. Prep. perf. 2,190 ft.

Ellis County

C. M. Beckner et al No. 1 H. A. Styles, A. Bullock Sur., 3½ mi. W of Maypearl. Drlg. 586 ft.

Falls County

M. A. Hayes No. 1 D. G. Wooten, J. Powell Sur., 8 mi. SE of Zott. Drlg. 1,043 ft.

Jack Shaunfield No. 1 Bargonier, J. M. Graham Sur., SE of Chilton. Drlg. 805 ft.

Fannin County

H. W. English No. 1 T. W. Ayers, J. D. Seales Sur. S.D. 160 ft.

Freestone County

J. R. Bunn No. 1 S. Jeffries, W. A. Bishop Sur., 8 mi. NE of Streetman. Drlg. 1,360 ft.; (no report).

W. B. Johnson Drlg. Co. No. 1 D. O. Nettles, W. Carter Sur., 4 mi. SE of Streetman. D.&A. 3,705 ft.

W. H. Keeling No. 1 Bounds-Longbotham, R. B. Longbotham Sur. S.D. 20 ft.

Grayson County

John Grey No. 1 Freedman, W. S. Reeves Sur., 8 mi. NW of Denison. O.S. 1,357-59 ft.; S.D. 1,381 ft.; S.O.; W.O.C. 1,407 ft.

Jim McMurrey No. 1 Dr. T. J. Long, J. Garland Sur., 2 mi. S of Collinsville; 4,000-ft. test. S.D.O. 3,929 ft.

Sinclair Prairie Oil Co. No. 1 M. Williams, R. H. Sowell Sur., 1 mi. SW of Collinsville. Cg. 4,386 ft.

Henderson County

Richards & Holloway No. 1 Rowe & Baker, J. T. Childers Sur., 6 mi. SW of Mabank, 400 ft. W of Tyler & Smith No. 1 Rowe & Baker discovery well. C.O. 3,042 ft.

Tide Water-Seaboard-Humble No. 1 Lewis, J. K. Stokes Sur., 1 mi. N of Opelika area. Drlg. 6,887 ft.

Tide Water-Seaboard-Humble No. 1 Scott, C. Robb Sur., 3 mi. SW of Opelika area. Drlg. 7,060 ft.

Hill County

A. V. Abernathy and L. N. Sanders No. 1 E. M. Farrell, M. Mata Sur., ¼ mi. NE of Mt. Calm. Drlg. 930 ft.

Houston County

G. C. Dixon No. 1 W. Goodman, J. J. Thomas Sur., ¾ mi. E of Lovelady. Drlg. 1,930 ft.

Kaufman County

Griffith & Griffith No. 1 B. Murray, W. Fulcher Sur., 3 mi. N of Elmo. D.&A. 2,512 ft.

Sam Knoerr No. 1 J. B. Hunter, P. Walker Sur., 5 mi. S of Terrell. R.U. to D.D. 2,100 ft.

Leon County

Humble O. & R. Co. No. 1 W. Johnson, W. Little Sur., outpost to Humble-Harris area. Drlg. 5,480 ft.

Humble O. & R. Co. No. 1 C. R. Polen, H. W. Sublett Sur., 4 mi. NW of Navarro Crossing pool. Comp.; 84 B.O. P.D.

Limestone County

Albert Baggett No. 1 J. L. Thompson, P. Varela Sur. S.D. 15 ft.

W. H. Foster No. 1 J. P. Key, Roxella Sur., 1 mi. SE of Datura. Drlg.

Nacogdoches County

D. McDaniels No. 1 T. H. Seale, J. A. Cherino Sur., just outside of city limits of Cherino. S.D. 690 ft.

Rains County

McKinley & Hastings No. 1 McTaggart, B. Milder Sur., 1 mi. W of Emory. S.D. 720 ft.

Red River County

Kansas-Oklahoma Pet. Corp. No. 1 R. H. Ringwald, A. Moore Sur., 3 mi. W of Manchester. Drlg. 400 ft.

Robertson County

J. E. Cox No. 1 Sandifer, H. Henry Sur., 3½ mi. SE of Franklin. Loc.

Rusk County

Golden Rod Drlg. Co. No. 1 Hall Wood, J. I. Sanches Sur., 1½ mi. NW of Salem. Loc.

Hamm & Bogges No. 1 W. G. Ross, J. McCune Sur., 3 mi. NW of Mount Enterprise. Drlg. 2,550 ft.

Smith County

J. H. Thomason No. 1 J. W. Bartlett, R. H. Stewart Sur., ½ mi. SE of Jamestown. Prep. D.D. 2,004 ft.

Titus County

Superior Oil Co. No. 1 John Hargraves, S. B. Patton Sur., 8 mi. S of Mt. Pleasant. Loc.

Trinity County

McApline No. 1 C. V. Dilley, J. Grissett Sur., 7 mi. N of Trinity. Cg. 1,973 ft.

Van Zandt County

F. A. Richardson No. 1-A B. C. Dodd, T. W. Hutchinson Sur., 2 mi. S of Grand Saline. Drlg. 4,757 ft.

NORTH TEXAS WILDCATS

Archer County

A. H. Fraser No. 1 W. M. Coleman, Lot 56, Brazos Co. Sch. Ld., Sur. A-18. Drlg. 1,208 ft.

G. E. Kadane & Sons No. 1 J. Hemmi, Sec. 60, Clark & Plumb Sur., Blk. 3, T.D. 5,314 ft.; 6⅝-in. 5,150 ft.; S.L. 5,174-5,220 ft.; treated with 5,000 gal. acd.; flwd. back load; blg. and tstg.

W. B. Omohundro No. 1 A. B. Peckham, Sec. 22, H.&T.C. Sur., Blk. 1. Drlg. 4,800 ft.

Baylor County

British Am. O. P. Co. No. 1 J. E. Cope, Sec. 220, T.&N.O. Sur. 6⅝-in. 2,850

Clay County

L. T. Burns No. 1 E. F. Calloway, Lot 9, Hopkins Co. Sch. Ld. Set surf.; W.O.C.

L. T. Burns No. 1 C. L. Wynn, H. Williams Sur. A-704. Drlg. 4,465 ft.; had S.S.O. 4,395-4,415 ft.; Schlumberger survey showed some sat.; drlg. 4,858 ft.

shot 60 qt.; C.O.; show scum oil.

J. E. Farrell No. 1 C. P. Malone, Sec. 12, T.&N.O. A-828 Sur. Drlg. 4,080 ft.

Frabar-Hodges and Mid-Union Drlg. Co. No. 1 Mrs. R. C. Kinder, Lot 11, Clark & Plumb Sur., Blk. 2. Drlg. 4,420 ft.

Cooke County

Sinclair Prairie No. 10 J. M. Best, T. Toby Sur. A-1054. (500 ft. below regular pay); drlg. to 5,560 ft.; prep. to core.

Montague County

Bridwell Oil Co. No. 1 H. A. Reynolds, Sec. 9, E.T.R.R. Sur. Drlg. 5,360 ft.

Cordova-Union Oil-Gillespie No. 1 Cable, Stephenson Sur., Abst. 462. Drlg. 4,520 ft.

E. B. Madden No. 1 Smith, H. N. Baker A-49 Sur. Drlg. 3,192 ft.

Sinclair Prairie Oil Co. No. 1 Whaley, Sec. 16, B.B.B.&C. A-86. Sur. Drlg. 660 ft.

Wichita County

Hanlon-Buchanan, Inc., No. 1 Fassett & Tuttle "F." D.L.&C. Sur. A-596. 6⅝-in. 4,040 ft.; L.&O.S. 4,061-92 ft.; shot 155 qt.; tstg. est. 100 bbl.; C.O.; tstg.

Wilbarger County

Lawson & Leavell No. 16 W. T. Waggoner A. Sec. 109. H.&T.C. Sur., Blk. 14; 3,500-ft. test. Drlg. 1,445 ft.

Young County

Hull & Silk No. 1 H. N. Tucker, Sec. 180, T.E.&L. Sur. Drlg. 2,910 ft.

H. M. Leidecker No. 1 J. M. Nail, Sec. 1997, T.E.&L. Sur. 6⅝-in. 3,095 ft.; 5¼-in. 4,448 ft.; drlg. plug; tstg. 2,000 ft.; flwd. 159 bbl. in 30 min. and S.I.

WEST CENTRAL TEXAS DISTRICT

Brown County

Dan Hartzell No. 1 H. D. Browning, Blk. 31, Chas. Messer Sur. No. 127. Drlg. 532 ft.

Lynn No. 1 Nesbitt Rice, M.E.P.&P. Sur., Blk. 25. Drlg. 895 ft.

Callahan County

J. W. Dobbs Oil Corp. No. 2 Finley, Sec. 75, Bayland Orphans Home Lds. Skd. rig 50 ft.; U.R. 842 ft.

S. Herndon No. 1 W. L. Toland, Sec. 27, Blk. 5, S.P.R.R. Sur. Loc.

E. L. Thomas No. 1 Ramsey, Sec. 104, B.B.B.&C. Sur. Drlg. 1,315 ft.

Comanche County

Comanche O. & G. Co. No. 1 J. E. McGuire, C. Rockefeller Sur. No. 3. S.D. O. 2,910 ft.

E. T. DeArman No. 1 Moorman, Sec. 37, D.&D.A. Sur. Comp.; 61 B.O.P.D.

Concho County

Floyd Dodson No. 1 Robert Wilson, Thomas Green Sur. Spd. and S.D.

Eastland County

L. H. Choate No. 1 C. L. Yancey, Sec. 151, Blk. 2, H.&T.C. Sur. Drlg. 900 ft.

R. R. Groce No. 1 J. M. Rush, Sec. 130, Blk. 3, H.&T.C. Sur. Loc.

W. T. Luton No. 1 R. Been, Sec. 13, Blk. 3, H.&T.C. Sur. S.D. 258 ft.

John L. Reeves No. 1 Jas. Weaver, Blk. 55, McLennan C.S.L., League 304. Drlg. 790 ft.

W. R. Ritchey No. 1 Weddington, Sec. 2054, T.E.&L. Sur. U.R. 2,615 ft.

W. A. Stiles No. 1 J. Lyerla, SE part of Ussury Sur. No. 20. Drlg. 500 ft.

Erath County

Wayne Chandler No. 1 Chandler, J. W. Moore Sur., Abst. 571. Fsg. 4,595 ft.

Hamilton County

Wallace & Vickers No. 1 C. C. Lund, J. P. Bailey Sur. 51. S.D.O. 3,430 ft.

Haskell County

E. W. Marland No. 1 Cobb, Sec. 96, Blk. 1, H.&T.C. Sur. Rng. 10-in. at 1,260 ft.

Hood County

Prince & Miller No. 1 J. H. Andrews, NW cor. of Geo. Sutherland Sur. S.D.O. 820 ft.

Jones County

Ed. L. Evans No. 1 B. J. Crier, Sec. 8, B.A.L. Sur. S.D.O. 1,721 ft.; est. 10 B. O.P.D.

Gillespie et al No. 1 J. D. Samples, Sec. 45, Deaf and Dumb Asylum Lds. Drlg. 3,035 ft.

E. C. Lawson No. 1 M. M. McNair, Lot 3, Blk. 5, Lawson Sur., 4 mi. SW of Lueders. Drlg. 1,570 ft.

Quality Prod. No. 1 Radford, SE¼ Sec. 20, Blk. 16, T.&P. Sur. Drlg. 1,541 ft.

A. H. Tarver No. 1 A. S. Barkley, Sec. 54, Deaf and Dumb Asyl. Lds. Drlg. 2,277 ft.

Mills County

D. Lane No. 1 J. W. Spinks, J. Douglas Sur. No. 5. Loc.

Nolan County

Green & Owens No. 1 Tipton, Sec. 43, Blk. 19, T.&P. Sur. Fsg. csg. 4,464 ft.

Palo Pinto County

J. W. Lane No. 1-A R. S. Dalton, Sec. 1789, T.E.&L. Sur. C.O. 1,222 ft.

Parker County

Brown-Gardner Bros. No. 1 Gilbert, T.& P. Sur., Abst. 1958. S.D. 2,200 ft.

Shackelford County

C. A. Everts No. 1 Dawson & Conway, Sec. 175, E.T.R.R. Sur. Str. hole 1,060 ft.

Hedrick Oil No. 1 Carey, Sec. 51, Blk. 14, T.&P. Sur. Drlg. 1,553 ft.

Kleiner & Heltzel No. 1 J. P. Morris, Sec. 198, E.T.R.R. Sur. D.&A. 1,733 ft.

C. W. Waddington No. 1 Cottle, Sec. 42, Univ. Sur. Spdg.

EAST TEXAS

(Border Counties)

Cass County

Red Iron Drlg. Co. No. 1 N. S. Spearman, Samuel Burnham Sur. R.U.

Harrison County

Ark. La. Gas Co. No. 1-B Abney, J. J. Blair Sur. Drlg. sh.&sd. 3,722 ft.

Marion County—Rodessa

Ark. La. Gas Co. No. 1 Crawford, 25-ac. tr., A. D. S. Coy Sur. T. Hill sd. 6,040 ft.: T. Gloyd 6,154 ft.; set 5½-in. csg. 6,150 ft.; W.O.C.; T.D. 6,163 ft.

Cable Tool Drlg. Co. No. 1 Sol Smith, 345 ft. WL. 450 ft. SL lse., J. Hanks Sur. Drlg. L.&sh. 5,275 ft.

Geo. Echols No. 1 C. W. Ray, 16-ac. tr., John Hanks Sur. T. Hill 5,849 ft.; T. Gloyd 5,958 ft.; set 5½-in. csg.; T.D. 6,002 ft.

Magnolia Pet. Co. No. 1 Duncan Est., 216 ft. NL. 1,105 ft. EL lse., T. M. Davis Sur. Drlg. L.&sh. 3,550 ft.

Marion County—Other

M. D. Fitzwater No. 1 Terry, W. Coor Sur. T.D. 2,381 ft.; cd. 2,366-75 ft.; sat. Tokio sd.; flwd. reported 5 B.P.H.; S.I.

Shelby County

Earl McDaniel No. 1 C. W. McDaniel, Wm. Snider Sur. P.B. to perf. 5,100 ft.; gas-dist. zone.

Personal Paragraphs

J. A. KELLEY will become sales manager of Cities Service Oil Co. (Pennsylvania) as part of changes in the marketing organization effective July 1. He is now sales manager in New England. C. E. FOSTER will continue as vice president in charge of marketing. Under the new arrangement, as explained by JOHN S. CORDELL, vice president and general manager, the 16 division offices will be merged into four regional divisions, in Boston, New York, Syracuse, and Harrisburg. H. C. GIBSON has been appointed manager of the New York division, which will cover the metropolitan area, Connecticut, part of Massachusetts, New Jersey, and the Philadelphia metropolitan area. The Boston division, headed by R. J. HULL, will operate in Rhode Island, eastern Massachusetts, New Hampshire, and Maine. All New York State (except metropolitan New York) and Vermont will be included in the Syracuse division, with W. E. GRIFFETH manager. The Harrisburg division will include Pennsylvania (excepting the Philadelphia metropolitan area), Delaware, Maryland, District of Columbia and part of Virginia, with C. A. GIBLIN manager.

C. WOESSNER, engineer for Gulf Oil Corp.'s New York producing division, is to return late this week from an inspection trip to Venezuela.

BRAME WOMACK, geologist, who several months ago transferred his activities from Dallas to Abilene, Tex., has moved back and reopened an office in Dallas.

E. V. FORAN, consulting engineer for Parker, Foran, Knode & Boatwright, has been named by the Schuler Engineers Committee chief engineer in the pressure maintenance project proposed for the South Arkansas field.

ANDREW J. SHIRLEY, formerly assistant manager of the Los Angeles division of Shell Oil Co., Inc., has been appointed assistant sales manager of the division. CHARLES S. GARVIN, manager at San Diego, has been transferred to Seattle, Wash., as assistant sales manager of the Seattle division.

FRED SMITH, Tulsa division manager of Mid-Continent Petroleum Corp., accompanied by Mrs. Smith, is on vacation in the Ozarks, near Camdenton, Mo.

S. I. HULSE, sales manager of Warren Petroleum Corp., Tulsa, accompanied by Mrs. Hulse and their children, motored to Parco, Wyo., for 2 weeks of fishing and golf.

CHARLES McCAA, of the oil movement department of Standard Oil Co. of Louisiana, Baton Rouge, La., accompanied by Mrs. McCaa, are to sail on the Normandie from New York June 28 for a European tour. The itinerary includes France, Switzerland, Belgium, Holland, England, Scotland, and Germany, with a week each in Paris and London.

J. E. HELLINGHAUSEN, Tulsa, who graduated this year from the University of Tulsa, has joined Murchison & Fikes, Dallas, Tex., as a petroleum engineer. He has been assigned to Allred, in Yoakum County, Texas.

C. B. WRIGHTSMAN, of Houston, Tex., president Standard Oil Co. of Kansas, was in New York last week. He teamed with fellow Texans to win a practice polo match in preparation for the Meadow Brook Club's annual tournament. Mr. Wrightsman rode with CECIL SMITH, WILLIAM DRITT and HARRY EVINGER.

WILLIAM A. WATKINS, of Carter Oil Co., has been elected chairman of the new Illinois basin chapter of the American Petroleum Institute. BART de LAAT, of Pure Oil Co., and JACOB HAAS, of Adams Oil & Gas Co., were chosen vice chairmen. Sixty-five oil men from Illinois, Indiana, and Kentucky formed the chapter at a meeting in Mattoon, Ill.

LOUIS A. WILLIFORD, Macmillan Petroleum Corp., has been elected president of the Los Angeles Petroleum Accountants Society. WILLIAM A. RUSSELL, Seaboard Oil Corp., and DWIGHT A. MOORE, Wilshire Oil Co., were elected vice presidents. IRVING J. HANCOCK, Union Oil Co. of California, is secretary-treasurer. Directors in addition to the officers are CHARLES K. SLACK and STANLEY J. ANDERSON.

Do You Rememember?

From The Oil and Gas Journal Files

25 YEARS AGO

Royal Dutch-Shell interests are planning to extend their activities into western Canada.

The derrick for the Drake well was 34 ft. high. Derricks have been built higher and stronger as drilling became deeper. Now they have reached a height of 106 ft. in California, for heavy rotary work.

The Dingman well in Alberta, Canada, produced 64.8-gravity naphtha.

A. J. Hazlett, resigns from The Oil and Gas Journal staff to go with the Atlantic Petroleum Co. of St. Louis.

20 YEARS AGO

The Texas Co. discovery well in the Hewitt pool in Carter County, Oklahoma, gages 325 bbl. a day. It started a lively campaign of leasing.

Henry Hamlin, director in numerous natural gas companies in the east, dies at his home in Smethport, Pa. He was a wealthy investment banker.

Mr. and Mrs. Nels Esperson of Houston, Tex., sell their oil interests to the Invincible Oil Corp. for $5,000,000.

Art Walker, chairman of the Oklahoma Corporation Commission, wants to resign as a commissioner to enter private business, but Governor Robertson prevails on him to remain until August 1.

10 YEARS AGO

President Herbert Hoover is a strong advocate of an interstate oil compact for the prevention of oil and gas waste.

A movement is on foot to establish a petroleum exchange in New York.

Gulf Coast deep hole record is broken by Yount-Lee Oil Co. in a well in the Crowley, La., field. The hole is below 7,400 ft. and still drilling.

R. LLOYD WHEELOCK, Corsicana, Tex., oil man, held his annual barbecue on his ranch east of Corsicana Saturday, June 10. Oil men from throughout Texas attended.

T. R. ARMSTRONG, vice president of several foreign subsidiaries of Standard Oil Co. of New Jersey, sailed from New York June 16 for Venezuela.

B. H. GRAY, former vice president of the Atlas Pipe Line Corp., has acquired the Princeton, La., refinery of Lake Price Refineries, Inc., which shortly will resume operations under the name of Pennant Refining Co.

W. T. WALLACE, vice president of Gulf Oil Corp., in charge of the New York producing division, was forced by illness to leave at Panama the boat on which he was returning from Venezuela to New York. He is now in a Panama hospital.

R. J. BRADEN, of Marietta, Ohio, has been appointed a member of the production advisory committee of the Pennsylvania Grade Crude Oil Association. He is head of the R. J. Braden Co., which operates producing properties in Ohio and West Virginia.

C. M. CREBBS, president of Mene Grande Oil Co., Venezuelan operating subsidiary of Gulf Oil Corp., will be joined in Venezuela by Mrs. Crebbs and their two sons, Robert and Benjamin, who have been in the United States attending school. Mr. Crebbs' family sailed from New York June 16 aboard the Santa Rosa.

GEORGE W. STRAKE, president of Strake Petroleum, Inc., Houston, Tex., is taking a vacation in the mountains of Colorado.

TODDIE L. WYNNE, president of Aloco Oil Co., Dallas, Tex., has returned home from Culver, Ind., where he has a son attending the Culver Military Academy.

CHARLES H. BRUMBAUGH has announced the formation of Brumbaugh Oil Co., in Dallas, Tex., to serve as North Texas distributor for refined products of Kendall Oil Co., Bradford, Pa.

JULIAN GARRETT, general manager of Northwestern Utilities, Ltd., of Edmonton, Alberta, was named president of the Canadian Gas Association at its annual convention in Hamilton, Ont.

E. A. SHOWERS, president of Showers & Moncrief, Inc., independent operators, Houston, Tex., with his family, is spending a summer vacation at his 141 Ranch, near Junction, West Texas.

ROBERT E. ALLEN has resigned as assistant to the president of A. O. Smith Corp. to resume active work in the California petroleum industry. Mr. Allen formerly was assistant oil umpire and executive secretary of the Central Committee of California Oil Producers.

ALFRED VOUGHT, chief engineer of the Standard Oil refinery in Palembang, Sumatra, Dutch East Indies, last week visited refineries in the Houston, Tex., area, and looked over the Standard Oil refinery in Baton Rouge, La. He now is on his way back to Sumatra. Mr. Vought is a native of New York.

Heads Gas Department

F. H. Lerch, Jr., who recently became president of Colorado Interstate Gas Co., Mississippi River Fuel Co., and Hope Producing Co., all subsidiaries of Standard Oil Co. (New Jersey), has headed the Standard's natural gas department since 1933. Previous to December of that year he had been resident manager of Interstate Natural Gas Co., Inc., a Standard subsidiary, for 6 years, during which time his headquarters were in Monroe, La. His advancement to the three presidencies was occasioned by retirement of Howell C. Cooper, whom he succeeds in these posts. From the time Mr. Lerch was discharged from military service, following the World War, until 1937, when he joined Interstate Natural, he was on the staff of Ford, Bacon & Davis, New York engineering firm.

F. H. LERCH, JR.

Mr. Lerch was born in Easton, Pa., March 27, 1888, and he graduated from Lafayette College in that city in 1909 with a bachelor of science degree in chemistry. Upon finishing school he started his professional career with Empire Steel & Iron Co., at Catasauqua, Pa., and he remained with that organization until 1914. From that year until he entered Army service Mr. Lerch was employed by T. A. Gillespie, New York construction company. He has made extensive studies in the production and transportation of natural gas.

J. M. BRADSHAW, Dallas, Tex., with Hercules Gasoline Co., is in New York City on a business trip.

J. R. PENN, president Texas Pacific Coal & Oil Co., Fort Worth, Tex., was in New York last week.

DAVE HENDERSON, district geogist for Stanolind Oil & Gas Co., Amarillo, Tex., has a new son, born June 13.

BARNEY FISHER, vice president of Coronado Co., Dallas, Tex., has returned from a fishing trip in Aransas Pass, South Texas.

L. C. McCLOSKEY, director and vice president of Imperial Oil, Ltd., has been elected a director of National Steel Car Co. of Montreal.

LEE E. LOEFFLER, Houston, Tex., assistant secretary and assistant treasurer of Standard Oil Co. of Kansas, is on vacation in the Rocky Mountains of Colorado.

F. C. SEALEY, manager of the foreign producing department of Texas Co., New York, has returned from a five weeks' South American trip. He stopped in Houston, Tex., for a short visit on his way home.

FRESH H. ASHLEY, manager for Panhandle Power & Light Co. in Stratford, Tex., the past eight years, has been transferred to Wheeler, in the Texas Panhandle, where he will be manager of the company property.

J. W. ELLIS, San Angelo, Tex., oil operator, left last week with his family for a month's trip by automobile through West and Northwest Texas. The trip will take them to Seattle, Wash., from which point they will go by boat to Alaska. They will return home through Canada.

SHIFTS: YOUNSE BOLES, toolpusher Manning & Martin, Inc., from Flora, Ill., to Pinedale, Wyo.; J. J. HOWELL, manager Refugio Refinery, from Edinburg, Tex., to Robstown, Tex.; GLENN E. WALLACE, manager I. T. I. O. Co., from Alva, Okla., to Cherokee, Okla.; C. M. VAN SLYKE, district manager Oklahoma Natural Gas Co., from Inola, Kans., to Okmulgee, Okla.; C. M. COLLINS, manager Central West Utility Co. of Kansas, from Herington, Kans., to Kansas City, Mo.; F. K. SPRAGINS, engineer Carter Oil Co., from Harrisburg, Ill., to Carmi, Ill.; C. B. PHILLIPS, district foreman Southern California Gas Co., from Bakersfield, Calif., to Los Angeles, Calif.; C. E. McPOLAND, superintendent Sinclair Refining Co., from Miami, Fla., to Kansas City, Mo.; LEE HAYS, superintendent Atlantic Oil Production Co., from Centralia, Ill., to Harrisburg, Ill.; K. Z. WILKING, superintendent Hupp & Duff, from Lexington, Ky., to Owensboro, Ky.; MARK H. O'CONNELL, geologist Cities Service Oil Co., from Lyns, Kans., to Conroe, Tex.; ROBERT L. SHICK, engineer E. H. Moore, Inc., from Ada, Okla., to Harden City, Okla.; DICK WEGENER, engineer H. H. Wegener Drilling Co., from Norman, Okla., to Walters, Okla.; LEIF OLSON, superintendent Olson Drilling Co., from Shawnee, Okla., to Oklahoma City, Okla.; VICK E. BAUM, superintendent Ryan Consolidated Petroleum Corp., from Tulsa to Dallas, Tex.; IVAN J. FENN, geologist Subterrex Co., from Pana, Ill., to Decatur, Ill.; R. T. BURT, superintendent Phillips Petroleum Co., from Kaw, Okla., to Nowata, Okla.; W. B. SELBY, vice president Selby Oil & Gas Co., from Sarasota, Fla., to Ennis, Mont.; B. P. BISHOP, geological department Pure Oil Co., from Cassopolis, Mich., to Paw Paw, Mich.; DEAN C. GLASS, engineer Pure Oil Co., from Tyler, Tex., to Jacksonville, Tex.; EDDIE REID, driller Arrow Drilling Co., from Mount Vernon, Ill., to Oblong, Ill.; EDWARD GIECK, president Signal Drilling Co., Inc., from Bridgeport, Ill., to Long Beach, Calif.

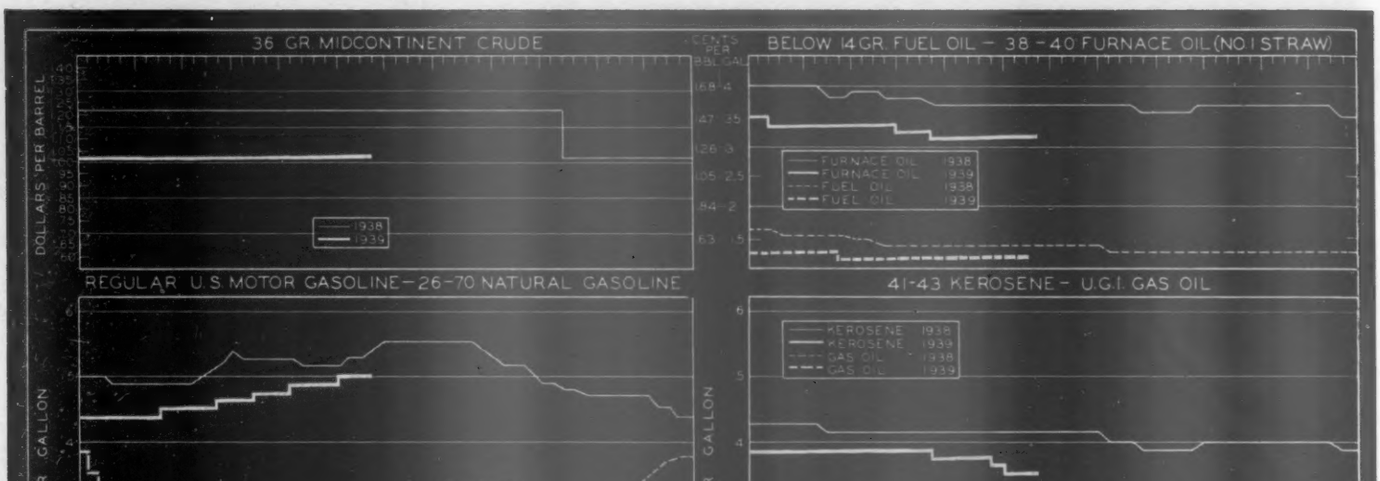
H. G. NAYLOR, assistant general manager of Standard Oil Co. (Indiana) retired on company annuity Wednesday of this week after 51 years in the oil business. Mr. Naylor joined Continental Oil Co. in 1888 and was traffic manager when he resigned to go with Midwest Oil Co. Following formation of Midwest Refining Co. in 1914 he became a director in 1916 and vice president in 1923. Midwest was dissolved in 1932, and the next year Mr. Taylor was made assistant general manager of Standard of Indiana. He has been a director of Utah Refining Co., subsidiary of Standard of Indiana, since 1927.

HERMAN ALBER, JR., assistant manager of refined oil sales for Gilmore Oil Co., was presented with a diamond pin, emblematic of 20 years' service, by EARL GILMORE, president of the company, just before he left on vacation.

HOWARD BOYD, formerly chief scout for Magnolia Petroleum Co., in Dallas, Tex., is now in Lexington, Ky., where he is picking up leases for his company. Mr. Boyd was transferred to the land department recently and sent first to Wichita, Kans.

RALPH A. McGOEY, of Union Oil Co. of California, has been appointed acting manager of out-of-state field department operations, succeeding CHARLES SHERMAN. He has charge of all company properties in Texas, New Mexico, Colorado, Wyoming, Nebraska, and Oklahoma.

O. E. McCLATCHEY, purchasing agent for Barnsdall Oil Co., is back at his desk in Tulsa following a motor trip on which he was accompanied by Mrs. McClatchey and her sister, Mrs. Nell Tingley. The tour took them to Grand Canyon, Boulder Dam, Yosemite Valley, San Francisco and the fair, Oregon, Washington, Yellowstone Park, and Hot Springs, Ark.



Representative Mid-Continent Quotations on Crude Oil and Refined Products, Basis Oklahoma (Group 3)

Tank-Wagon Advances Pave Way for Better Group 3 Refinery Prices

By T. F. SMILEY

If Group 3 tankcar prices of gasoline do not go up an eighth-cent or more in the next week, refiners in that area will be a disappointed lot, and some of them will have damaged their reputations as prophets. Tank-wagon advances have paved the way for the higher refinery prices which are requisite to profitable operation and which many declare must be adopted if crude prices are to be kept from crumbling.

Further strengthening of the tank-wagon and dealer markets by price advances in Standard of Indiana territory and in virtually all of the Southwest has had a stimulating effect in the tankcar division, and confidence was expressed that refiners were to get prices for gasoline that at least would enable them to put away the red-ink bottle.

Basis Laid for Better Prices

Since mid-February, when Group 3 refiners were getting 4¾ cents for their regular-grade gasoline, tankcar prices have risen ⅝ cent. That, however, merely dragged them from a point that represented positive loss to one that enabled some refiners to break even. Not till recent weeks were tank-wagon prices carried to higher levels along a wide front. There were changes at scattered points, but these resulted from local conditions, where price-cutting as a rule was rampant. And the changes were more frequently declines than advances. With the tank-wagon and retail divisions in so low a state, it was impossible to pull refinery prices any higher. This impediment has been removed in great part by country-wide tank-wagon advances during the past month.

Standard of Indiana took another step in the direction of healthier markets last Saturday when it advanced all subnormal tank-wagon prices to dealers and consumers to normal or a half-cent a gallon where the existing price was more than a half-cent below normal. This action was effective in the 10 states in which Standard of Indiana is recognized as the key marketing organization. Previous advances made by the company left some points still with subnormal tank-wagon prices.

Spot gasoline shipments, which had been lagging, showed little if any improvement this week. Contract movement was satisfactory. Buyers in the open market stocked up heavily in May, with the result that they were able to postpone further purchases for an unusually long time. Not only are their supplies now getting near bottom, but there is the prospect of higher tankcar prices to prompt them to action.

Nearness of the Independence Day holiday should liven both spot and contract shipments, and consumption is expected to show steady gains till the peak of the vacation season.

Natural gasoline maintained all the strength it displayed last week, and even added a little. Supplies of the 26-70 grade were far from plentiful, a condition which contributed to market vigor. Some of the large manufacturers have been manifesting interest in buying at current price levels. There were inquiries in the past week for 500- to 1,000-ton lots of natural for introduction into cargoes of crude for foreign shipment. The grades wanted were 18- to 20-pound.

Wax Continues Strong

The sustained strength of wax was a subject of remark. No crude scale, either white or yellow, so far as could be ascertained, was available at less than 3 cents a pound. Also the 122-124 was commanding the same price as the 124-126. Export demand has grown in recent weeks so that now it is heavier than domestic.

In the heating-oil division buying for storage was holding prices fairly steady. The No. 2 grade, both straw and dark, was in quite active demand. Kerosene was soft, and reports indicated there was no great difficulty in getting concessions.

Refined Oil Market Barometer

Interest centers on the stability of the higher tank-wagon gasoline prices announced during the past few weeks and on the course of major companies in the East which have not yet met the advances instituted by Sinclair Refining Co. Kerosene soft. Wax maintaining its strength. Natural gasoline in favorable position. Light fuels easy. Heavy industrials steady.

MID-CONTINENT. Gasoline firm. Naturals steady. Kerosene dull. Heating oils inactive.

EAST COAST. Gasoline makes rapid gains Light fuels, including kerosene, lifeless.

GULF COAST. General market firm, with prices unchanged.

PENNSYLVANIA. Market shows little change, excepting local adjustments in bright stock.

CALIFORNIA. Market quiet. Diesel and gas oil down. Gasoline and kerosene soft.

CHICAGO. Gasoline steady. Light fuels quiet. Heavy oils in substantial demand.

Northeast Motor Fuel Market Shares Country-Wide Gain

By H. STANLEY NORMAN

NEW YORK, June 20.—The northeastern motor-fuel market moved ahead last week at a range of one-tenth to a cent per gallon in the posted prices for consumer tankcar and tank-wagon deliveries. There were a few exceptions to the general advance in the New York and New England territory, where most of the advances were confined to a narrower range of 1/10 to ½ cent per gallon. Exceptions were the Staten Island tank-wagon market, which was left unchanged at 13 cents; the Buffalo tankcar market, unchanged at 12.4 cents and the tank-wagon posting at 11.8 cents; the Rochester tankcar market unchanged at 12.6 cents; the Syracuse tank-wagon market, which was reduced seven-tenths of a cent; the New Haven, Conn., tank-wagon market, which was unaltered at 12.25 cents per gallon; and the Portland, Me., tank-wagon price, which was reduced one-tenth of a cent, although the tankcar price at the same point was elevated 1.1 cents to 11.7 cents for the widest markup in the entire territory. Another exception was the tank-wagon quotation at Worcester, Mass., where Socony-Vacuum Oil Co., Inc., lowered its posting three-tenths of a cent to 12.5 cents, while raising the tankcar market three-tenths to 11.4 cents per gallon.

The country-wide advance of a half cent per gallon instituted by Sinclair Refining Co. and other marketing subsidiaries of the Consolidated Oil Corp. group became effective in the tank-wagon market on June 15, including the New York and New England territory.

The entire territory along the Atlantic seaboard and extending inland most of the way from Florida to Maine as far west as the Mississippi River and the Ohio was blanketed with motor-fuel price increases. Practically all companies marketing in the territory made advances ranging up to the full half cent per gallon instituted by Sinclair.

Last midweek Texas Co. advanced dealer tank-wagon prices for all grades of motor fuel in New Jersey, Maryland, District of Columbia, Delaware, Louisiana, Maryland, Alabama, Mississippi, Kentucky, Florida, Georgia, Illinois, Wisconsin, Michigan, Minnesota, North and South Dakota, Iowa, Missouri, and Kansas.

Cities Service Oil Co. (Pennsylvania) advanced tank-wagon prices on house brand and premium motor fuels in amounts ranging from a tenth to a half cent per gallon in most territories, generally meeting the increases posted in the New York and New England territory by Socony-Vacuum. The company advanced third-grade gasoline in metropolitan New York a half cent per gallon and raised all grades of motor fuel in New Jersey a half cent per gallon. Cities Service established a new service-station price of 16.8 cents per gallon on house-brand (regular) gasoline in the New York metropolitan area. Shell advanced tank-wagon prices for motor fuel a half cent per gallon throughout New Jersey, Pennsylvania, Washington, D. C., Maryland, and Delaware.

Socony-Vacuum also increased its minimum retail price contracts with dealers under the Feld-Crawford Fair Trade Act to 16.8 cents per gallon on regular gasoline, an increase of a half cent per gallon.

At the end of the week there were only four important marketers in the territory east of the Rocky Mounains that had taken no action in advancing motor-fuel prices to some extent. Exceptions were the marketing subsidiaries of Standard Oil Co. of New Jersey, Sun Oil Co., Atlantic Refining Co., and Standard Oil Co. of Ohio. On the other hand, there were 19 companies operating on a national or regional scale that had advanced tank-wagon prices by amounts ranging from one-tenth to a cent per gallon, but the average was approximately a half cent.

Most dealers have elevated their service-station and bulk-plant prices to consumers by the margin of increased cost from the supplier. The exception is that some dealers have left service station prices on third grade gasoline unchanged despite the increased cost of supplies.

Although the higher motor-fuel prices had been in effect only a few days when the week ended, there had been no reports of any unfavorable reaction from consumers. Reports sifted into marketing company home offices that a surprisingly large number of motorists not only had paid the higher prices without protest but actually expressed sympathy with the movement to provide refiner-marketers with a reasonable profit on operations and to avoid a possible crude-price reduction.

With so much attention focused on the motor-fuel market, interest in other refined products dropped to a low level last week. Bunker C fuel oil is holding the gains of 5 cents per barrel on the Gulf and 10 cents per barrel on the Atlantic Coast instituted the first of June. Rumors were heard that cargo prices had turned a shade softer on the Gulf for Bunker C grade fuel oil, but sales were reported at 77½ to 80 cents per barrel, which is at the full scale of present and earlier June quotations. Industrial fuel oil is in fair demand from shore-plant consumers, according to information in New York marketing circles and the inside price remains fixed at 2.85 cents per gallon, with most suppliers quoting 3 to 3¼ cents per gallon to the tankcar trade, f.o.b. refineries.

Some New York distributors have marked up their tankcar gasoline prices and are quoting 6⅜ cents per gallon for 65-octane motor fuel as compared to a high of 6¼ cents per gallon prevailing up until a week ago. Some material, however, is still available at a range of 6 to 6⅛ cents, but suppliers willing to accept business at the low of the market spread are growing fewer. Observers anticipate that 6¼ cents per gallon for minimum 65-octane gasoline will be the low of the market before the current week closes.

General improvement in the tankcar, tank-wagon, and service-station markets in areas east of the Rocky Mountains last week made Gulf Coast refiners cautious sellers. Quotations at the cargo-market range of the preceding week were firm, and suppliers on the Gulf were unwilling to discuss business for loading more than a few weeks ahead. Motor-fuel consumption in all sections of the country is responding to more favorable driving weather conditions and to the fact that thousands of families have been liberated from school and are free for vacation travel.

Light fuel oils, including kerosene, are in a relatively weakened market position in keeping with seasonal temperatures. Kerosene is reported offered by some suppliers in New York at 4¼ cents per gallon to the tank car trade. This represents the inside price, however, and probably a majority of the current business is being transacted at 4⅜ cents per gallon. Light fuel oils, other than kerosene are generally held at 4¼ cents per gallon, although same traders report that a firm bid of 4 to 4⅛ cents per gallon will bring out material in the New York Harbor refining district.

A. P. I. Weekly Refinery Statistics

Week Ending June 17, 1939

	Capacity reporting (per cent)	Daily crude runs (bbls.)	Total gasoline stocks	Gas oil and fuel oil stocks
East Coast	100.0	541,000	21,656,000	7,297,000
Appalachian	85.9	109,000	3,304,000	660,000
Indiana, Illinois, and Kentucky	89.5	492,000	13,229,000	5,454,000
Oklahoma, Kansas, and Missouri	18.6	279,000	7,314,000	4,029,000
Inland Texas	50.3	135,000	1,577,000	2,058,000
Texas Gulf	89.5	838,000	10,134,000	9,301,000
Louisiana Gulf	97.3	132,000	2,579,000	2,397,000
North Louisiana and Arkansas	55.0	41,000	473,000	867,000
Rocky Mountains	54.2	53,000	1,688,000	699,000
California	90.0	519,000	15,633,000	96,123,000
Total reported	85.8	3,139,000	77,587,000	128,885,000
Estimated unreported	.....	341,000	5,070,000	2,950,000
*Estimated total	.....	3,480,000	82,657,000	131,835,000
*Estimated total previous week	.....	3,510,000	82,716,000	130,773,000
*June 18, 1938	.....	3,129,000	83,831,000	135,941,000

*Bureau of Mines, currently estimated.

Stocks of Crude Oil in the United States

(BUREAU OF MINES ESTIMATE)

Week ending June 10, 1939	274,692,000 barrels
Week ending June 3, 1939	277,947,000 barrels
Week ending June 11, 1938	297,197,000 barrels

Figures do not include stocks of heavy, unrefinable California crude.

Retail Oil Markets

Tank-wagon and filling station prices on gasoline and kerosene furnished by the larger marketing firms

Prices as of June 20, 1939

Taxes

The gasoline quotations given in the following tables include the 1-cent federal tax, as well as state, county, and city taxes. The gasoline is the regular or standard grade. In most areas lower grades and a premium grade also are available.

Standard Oil Co. (Indiana)

	Gasoline Tank-wag.	Dlr.	Inc. tax	Kero. tank-wag.
Chicago, Ill.	15.1	13.1	4.0	10.0
Decatur	15.1	13.6	4.0	10.0
Joliet	15.1	13.6	4.0	10.0
Peoria	15.1	13.6	4.0	10.0
Quincy	14.9	13.4	4.0	9.8
Davenport, Ia.	15.1	13.6	4.0	‡10.0
Des Moines	14.9	13.4	4.0	‡9.8
Mason City	15.3	13.8	4.0	‡10.2
Duluth, Minn.	16.9	15.4	5.0	10.8
Mankato	16.5	15.0	5.0	9.4
Minneapolis	16.5	15.0	5.0	10.4
LaCrosse, Wis.	16.5	15.0	5.0	10.4
Green Bay	16.9	15.4	5.0	10.8
Milwaukee	15.9	14.4	5.0	10.2
Detroit, Mich.	13.6	12.1	4.0	7.1
Grand Rapids	14.5	13.0	4.0	9.7
Saginaw	15.8	13.6	4.0	9.3
Evansville, Ind.	16.6	15.1	5.0	†10.5
Indianapolis	16.8	15.3	5.0	†10.7
South Bend	17.1	15.6	5.0	†10.0
Fargo, N. D.	16.7	15.2	4.0	11.6
Huron, S. D.	17.0	15.5	5.0	10.9
Kans. City, Mo.*	14.4	12.9	4.0	8.0
St. Louis*	14.7	13.2	4.0	8.0
St. Joseph	14.4	8.9	4.0	7.9
Wichita, Kans.	13.9	11.6	4.0	7.4

*State tax 2 cents, 1-cent city tax and 1-cent federal tax. †Does not include 4-cent state tax. ‡Does not include 3-cent state tax.

Exclusive of state general sales taxes.

Discounts to commercial consumers: On purchases per month off tank-wagon prices: 1,000 gallons or more, 1.5 cents off; minimum delivery 25 gallons.

Stanolex Fuel Oil in Chicago

Effective June 1, 1939, f.o.b. Chicago tank-wagon prices: Standard range oil, 1-99 gallons, 9 cents; 100-149 gallons, 8 cents; 150 gallons and over, 7.5 cents. Stanolex fuel oil No. 1, 1-149 gallons, 8.25 cents; 150-399 gallons, 7.25 cents; 400 gallons and over, 6.75 cents. Stanolex furnace oil, 1-149 gallons, 8.25 cents; 150-399 gallons, 7.25 cents; 400 gallons and over, 6.75 cents. Stanolex Grade A, 1-399 gallons, 5 cents; 400 gallons and over, 4 cents. Stanolex Grade B, 1-799 gallons, 5 cents; 800 gallons and over, 4 cents. Stanolex Grade C, 1-999 gallons, 4.25 cents; 1,000 gallons and over, 3.25 cents.

Ohio

STANDARD OIL CO. OF OHIO

	Gasoline Tank-wag. con'r.	Di-vided dlr.	Inc. tax	Kero. tank-wag.
Ohio points	16.0	15.0	5.0	*13.0

*Includes state tax of 1 cent.

Atlantic Coast District

STANDARD OIL CO. OF NEW JERSEY

	Gasoline Cons. tank-car	Dlr. tank-wag.	Inc. tax	Kero. tank-wag.
Atl'tic City, N. J.	10.9	12.7	4.0	7.0
Newark	10.9	12.7	4.0	7.0
Annapolis, Md.	12.85	14.35	5.0	9.5
Baltimore	12.25	13.75	5.0	7.0
Cumberland	13.65	16.15	5.0	10.0
Wash'gton, D. C.	10.50	12.0	3.0	9.5
Danville, Va.	14.45	16.95	6.0	12.9
Norfolk	13.25	15.75	6.0	11.5
Petersburg	13.55	16.05	6.0	11.7
Richmond	13.55	16.05	6.0	10.7
Roanoke	14.75	17.25	6.0	11.0
Charles'n, W. Va.	14.05	16.55	6.0	12.6
Parkersburg	13.35	14.85	6.0	11.2
Wheeling	14.35	15.75	6.0	12.2
Charlotte, N. C.	15.40	17.90	7.0	11.8
Hickory	15.95	18.45	7.0	12.3
Mt. Airy	15.80	18.50	7.0	12.2
Raleigh	15.15	17.65	7.0	11.5
Salisbury	15.45	17.95	7.0	11.9
Charleston, S. C.	14.25	16.75	7.0	10.6
Columbia	15.25	17.75	7.0	11.6
Spartanburg	15.95	18.45	7.0	12.4

Price basis to Essolene undivided dealers: Dealer tank-wagon price less .5 cent per gallon. Price basis to commercial consumers, effective March 8, 1937, in Maryland, District of Columbia, and in Arlington and Fairfax counties in Virginia; and March 12 in New Jersey: To contract accounts purchasing at least one full compartment at time by hose connection, on yearly purchases: From 2,500 to 100,000 gallons, consumer tank-wagon price at time and place of delivery; 100,000 gallons per year, consumer tankcar price plus .5 cent per gallon. Consumer tank-wagon price generally will be equivalent to dealer tank-wagon price less .5 cent per gallon.

Effective January 16, 1939, in North Carolina the commercial consumer schedule became as follows: Single deliveries of 50 gallons or more, consumer tank-wagon price. Single deliveries of less than 50 gallons, 4 cents per gallon over consumer tank-wagon price. Generally the posted consumer tank-wagon price will be equivalent to the dealer price, less .5 cent per gallon. The above policy also applies in South Carolina effective January 23, 1939.

Discounts for kerosene, 1 cent off tank-wagon price for 25 gallons or more under contract (contract not necessary in Baltimore) except no discount in New Jersey.

Southern District

STANDARD OIL CO. (KENTUCKY)

	Gasoline Cons'r. tank-wag.	Net dlr.	Inc. tax	Kero. tank-wag.
Atlanta, Ga.	20.5	17.5	7.0	9.0
Augusta	19.5	16.5	7.0	9.0
Macon	18.5	15.5	7.0	10.0
Savannah	18.5	15.5	7.0	8.0
Birmingham, Ala.	20.5	17.5	8.0	8.5
Mobile	20.5	17.5	9.0	8.5
Montgomery	21.5	18.5	9.0	10.5
Jackson, Miss.	18.5	15.5	7.0	9.5
Vicksburg	18.5	15.5	7.0	9.0
Jacksonville, Fla.	19.5	16.5	8.0	8.0
Miami	19.5	16.5	8.0	8.0
Pensacola	20.5	17.5	9.0	8.0
Tampa	19.5	16.5	8.0	8.0
Lexington, Ky.	19.0	16.0	6.0	10.0
Covington	17.5	14.5	6.0	9.5
Louisville	18.0	15.0	6.0	9.0
Paducah	18.0	15.0	6.0	9.0

Price basis to tank-wagon consumers: Effective January 4, 1937; 3 cents per gallon below tank-wagon price.

Montgomery, Ala., has a county tax of 1 cent per gallon, and a city tax of 1 cent per gallon on gasoline, in addition to state tax and 1 cent per gallon on kerosene. Mobile, Ala., has a city gasoline tax of 2 cents per gallon; Birmingham, Ala., has a city gasoline tax of 1 cent per gallon; Pensacola, Fla., has a city gasoline tax of 1 cent.

Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA

	Gasoline Tank-truck	Serv. sta.	Inc. tax	Kero. tank-wag.
San Francisco	17.5	18.5	4.0	11.5
Los Angeles	17.0	18.0	4.0	10.0
Fresno, Calif.	18.5	19.5	4.0	12.5
Phoenix, Ariz.	21.5	22.5	6.0	*17.5
Reno, Nev.	20.5	21.5	5.0	13.5
Portland, Ore.	20.0	21.0	6.0	13.5
Seattle ,Wash.	20.0	21.0	6.0	†13.75
Spokane	21.5	22.5	6.0	†16.75
Tacoma	20.0	21.0	6.0	†13.75

*Includes 5-cent state tax. †Includes .25-cent state tax.

Discounts to dealers: On gasoline, off tank-wagon price, to 100 per cent dealers, 3 cents. To commercial consumers: On tank-wagon price; on single deliveries of 40 gallons and over, advance quantity discount extended at time of delivery, 3 cents. Service station schedule applies on single deliveries less than 40 gallons. On kerosene in tankcar, transport truck and trailer delivery, 3 cents off tank-wagon price; plant deliveries to jobbers, 2.5 cents below tank-wagon.

March 18, 1939, split dealer discount was canceled.

Pennsylvania and Delaware

ATLANTIC REFINING CO.

	Gasoline Cons. tank-car	Dlr. tank-wag.	Inc. tax	Kero. tank-wag.
Philadelphia, Pa.	12.0	13.5	5.0	10.0
Pittsburgh	13.0	13.5	5.0	10.5
Allentown	12.5	14.0	5.0	10.5
Erie	13.0	14.0	5.0	10.0
Scranton	12.5	14.0	5.0	10.5
Altoona	13.0	13.5	5.0	10.5
Dover, Del.		14.0	5.0	10.5
Wilmington		13.5	5.0	9.75

Price basis to undivided dealers, dealer tank-wagon price less .5 cent per gallon. Price basis to commercial consumers in Pennsylvania and Delaware, effective March 11, 1937: Consumers under contract using 100,000 gallons or more per year full compartment hose deliveries, tankcar plus .5 cent. Consumers under contract using less than 100,000 gallons per year compartment hose deliveries, undivided dealer price. Consumers under contract less than full compartment delivery, consumers not under contract, less than full compartment delivery, and consumers not under contract full compartment delivery, divided dealer price. Less than 25 gallons, tank-wagon delivery, 4 cents per gallon above undivided dealer price.

New York and New England

SOCONY-VACUUM OIL CO., INC.

	Gasoline Cons. tank-car	Dlr. tank-wag.	Inc. tax	Kero. tank-wag.
Albany	11.7	14.0	5.0	7.00
*Met. N. Y.:				
Manhat., Bronx.	11.8	13.0	5.0	6.75
Queens, Br'klyn	11.8	13.0	5.0	6.75
Staten Island	11.8	13.0	5.0	6.75
Buffalo	12.4	11.8	5.0	7.50
Rochester	12.6	14.0	5.0	7.75
Syracuse	12.3	13.5	5.0	7.25
Boston	10.7	12.25	4.0	6.50
Portland, Me.	11.7	13.7	5.0	6.75
Manchester, N. H.	12.4	14.5	5.0	7.25
Burlington, Vt.	12.2	14.5	5.0	7.25
Springfield, Mass.	11.4	13.3	4.0	6.00
Worcester	11.4	12.5	4.0	7.00
Hartford, Conn.	11.1	13.2	4.0	6.50
New Haven	11.0	12.25	4.0	6.00
Providence, R. I.	10.7	12.50	4.0	6.25

*Does not include 2 per cent city sales tax which is calculated on basis of net retail price exclusive of state and federal taxes. Metropolitan New York prices are undivided dealer prices; others are split dealer.

Effective February 15, 1939, the company changed its commercial consumer policy in New York and New England points for tank-wagon delivery to the following: Annual purchases 10,000 gallons and under, tankcar price plus 2 cents per gallon; annual purchases 10,000 gallons up to 50,000 gallons, tankcar price plus 1.5 cents per gallon; annual purchases 50,000 to 200,000 gallons, tankcar price plus 1 cent per gallon; annual purchases 200,000 gallons and over, tankcar price plus one-half cent per gallon. Private consumers will pay undivided dealer price, plus 2 cents per gallon. Private consumers receiving full compartment deliveries of at least 200 gallons will receive a discount of one-half cent per gallon.

Rocky Mountain District

CONTINENTAL OIL CO.

	Gasoline Tank-wag.	Dlr.	Incl. tax	Kero. tank-wag.
Denver, Colo.	15.5	...	5.0	11.5
Grand Junction	18.0	...	5.0	15.0
Pueblo	16.0	...	5.0	9.0
Casper, Wyo.	17.0	...	5.0	11.5
Cheyenne	15.0	...	5.0	13.0
Billings, Mont.	18.0	...	6.0	13.0
Butte	19.5	...	6.0	15.5
Great Falls	19.0	...	6.0	15.5
Helena	20.0	...	6.0	15.5
Salt Lake, Utah	17.0	17.0	5.0	16.0
Boise, Idaho	20.1	20.1	6.0	18.0
Twin Falls	20.6	20.6	6.0	18.0
Albu'que, N. M.	17.0	17.0	6.5	10.0
Roswell	15.5	15.5	6.5	8.0
Santa Fe	17.5	17.5	6.5	10.0

*Includes city tax of .5 cent. †Includes state tax of 1 mill.

Tank-wagon represents price to consumers. Dealer represents price to dealers. If no dealer price is quoted, the tank-wagon price applies to all classes of trade.

Central South District

STANDARD OIL CO. OF LOUISIANA

	Gasoline Cons. tank-car	Dlr. tank-wag.	Inc. tax	Kero. tank-wag.
New Orleans, La.	16.75	19.25	*10.0	†11.0
Baton Rouge	14.75	17.25	8.0	‡10.5
Alexandria	14.75	17.25	8.0	‡12.5
Lafayette	15.00	17.50	8.0	‡11.0
Lake Charles	14.75	17.25	8.0	‡12.5
Shreveport	13.50	16.00	8.0	‡11.0
Knoxville, Tenn.	18.00	20.50	8.0	14.5
Memphis	16.00	18.50	8.0	11.0
Chattanooga	17.50	19.00	8.0	14.0
Nashville	17.00	19.5	8.0	12.0
Bristol	18.25	16.50	8.0	13.0

Essolene at dealer price less .5 cent per gallon to undivided dealers.

*Includes 2-cent parish tax. †Includes 1-cent parish tax and 1-cent state tax. ‡Includes 1-cent state tax.

Price basis to commercial consumers: Effective May 15, 1937, deliveries of 50 gallons or more in one territory take posted consumer tank-wagon price. Accounts taking deliveries of less than 50 gallons at one time pay posted consumer tank-wagon price plus 4 cents per gallon. Generally, the posted consumer tank-wagon price will be equivalent to the dealer price less .5 cent per gallon. Kerosene prices include 1-cent state tax.

Effective February 24, 1939, the company reestablished in New Orleans the commercial consumer policy on motor fuel effective in the rest of the state.

Effective December 12, 1938, the company revised its commercial consumer policy on motor fuel in New Orleans, as follows: Single deliveries of less than 50 gallons, consumer tankcar plus 2 cents per gallon; 50 to 199 gallons, consumer tankcar plus 1 cent per gallon; 200 gallons and over, consumer tankcar plus .5 cent per gallon.

Nebraska

STANDARD OIL CO. OF NEBRASKA

	Gasoline Tank-Wag.	Dlr.	Inc. tax	Kero. tank-wag.
Omaha	17.5	16.0	6.0	10.3
McCook	18.0	15.0	6.0	9.0
Norfolk	17.0	15.9	6.0	9.0
North Platte	18.3	16.8	6.0	11.1
Scottsbluff	18.0	15.9	6.0	11.0

Discounts to commercial consumers for tank-wagon deliveries covered only by standard commercial consumers contract, effective January 1, 1935.

Oklahoma and Arkansas

CONTINENTAL OIL CO.

	Gasoline Tank-wag.	Includes tax	Kero. tank-wag.
Texarkana, Ark.	14.0	5.0	8.0
Fort Smith	14.0	5.0	7.5
Little Rock	16.75	7.5	8.0
Muskogee, Okla.	13.0	5.0	7.0
Oklahoma City	13.0	5.0	6.5
Tulsa	13.0	5.0	7.0

The tank-wagon price is the price to all classes of trade.

Texas

	Gasoline Tank-wag.	Serv. sta.	Inc. tax	Kero. tank-wag.
Dallas, Tex.	14.0	18.0	5.0	7.0
Fort Worth	14.0	18.0	5.0	8.0
Houston	14.0	18.0	5.0	8.0
San Antonio	14.0	18.0	5.0	8.0

Naphtha

STANDARD OIL CO. (INDIANA)

	Tank-wagon*
Oleum spirits	15.7
V.M.&P. naphtha	16.0
Cleaners' naphtha	15.0
Stanisol	15.0

*Prices include 3-cent Illinois tax but not 1-cent federal tax or 2 per cent retail occupational tax.

Prices f.o.b. Chicago. Each price subject to discount of 1 cent per gallon for 150-gallon lots if covered by contract.

Canada*

3-Star Imperial Gasoline

IMPERIAL OIL, LTD.

	Tank-wag.	Inc. tax	Kero. tank-wag.
Halifax, N. S.	23.5	10.0	17.5
St. John, N. B.	23.5	10.0	17.5
Montreal, Que.	22.0	8.0	14.5
Toronto, Ont.	23.0	8.0	15.5
Hamilton, Ont.	23.0	8.0	15.5
Winnipeg, Man.	26.5	7.0	20.5
Brandon, Man.	28.0	7.0	22.9
Regina, Sask.	26.0	7.0	22.0
Saskatoon, Sask.	28.3	7.0	24.9
Edmonton, Alta.	26.5	7.0	21.5
Calgary, Alta.	23.5	7.0	19.0
Vancouver, B. C.	23.0	7.0	23.0

*Imperial gallon used in Canada.

Divided dealers pay tank-wagon prices. Discount to undivided dealers, 1 cent below tank-wagon price. In maritime provinces both divided and undivided dealers pay tank-wagon price.

Tank-Wagon Changes

Continental Oil Co. April 27 advanced tank-wagon gasoline 2 cents in Pueblo; June 9, advanced tank-wagon gasoline 1 cent in Muskogee, Oklahoma City, and Tulsa; June 12, advanced tank-wagon gasoline .5 cent in Albuquerque, Roswell, and Santa Fe.

Standard Oil Co. (Nebraska) June 14 advanced dealer and tank-wagon gasoline .5 cent in McCook, Norfolk, and Scottsbluff; same date, advanced dealer gasoline .4 cent in North Platte.

Standard Oil Co. (Kentucky) May 25 reduced net dealer and consumer tank-wagon gasoline .5 cent in Birmingham and Mobile; same date reduced net dealer and consumer tank-wagon gasoline .5 cent in Montgomery; June 1, advanced

(Continued on Page 130)

Prices of Refined Products

All quotations f.o.b. plant in cars for interstate or export movement except as otherwise noted

Prices as of June 20, 1939

The following quotations are exclusive of the federal excise taxes of 1 cent a gallon on gasoline and 4 cents a gallon on lubricating oils.

Refinery Gasoline

OKLAHOMA (Group 3)—

U. S. Motor grades:		
62 octane and below	.04¼	.04⅜
63-66 octane	.04½	.04⅝
67-69 octane	.04¾	.04⅞
70-72 octane (regular)	.05	.05⅛
60-62 400 grades:		
62 octane and below	.04¼	.04⅜
63-66 octane	.04½	.04⅝
67-69 octane	.04¾	.04⅞
70-72 octane (regular)	.05	.05⅛
64-66 375	.04¼	.04½
68-70 360	.05	.05¼

NORTH TEXAS—

U. S. Motor grades:		
62 octane and below	.04¼	.04⅜
63-66 octane	.04½	.04⅝
67-69 octane	.04¾	.04⅞
70-72 octane (regular)	.05	.05⅛
60-62 400	.04¼	.04⅜
64-66 375	.04¼	.04½

NORTH LOUISIANA (Ark. and N. La. delivery)—

U. S. Motor grades:		
62 octane and below	.04⅜	.04½
63-66 octane	.04⅝	.04⅝
67-69 octane	.04⅞	.04⅞
70-72 octane (regular)	.04⅞	.05¼

ARKANSAS (Ark. and N. La. del.)—

U. S. Motor grades:		
62 octane and below	.04½	.04⅝
67-69 octane	.04⅞	.05

CHICAGO (Based on Group 3)—

U. S. Motor grades:		
62 octane and below	.04¼	.04⅜
63-66 octane	.04½	.04⅝
67-69 octane	.04¾	.04⅞
70-72 octane (regular)	.05	.05⅛
60-62 400 grades:		
62 octane and below	.04¼	.04⅜
63-66 octane	.04½	.04⅝
67-69 octane	.04¾	.04⅞
70-72 octane (regular)	.05	.05⅛
64-66 375	.04⅛	.04¼
68-70 360	.05	.05¼

PENNSYLVANIA (inland refineries)—

58-60 U. S. Motor:		
Below 60 octane	.04½	.05
65 octane	.06¼	.06⅜
68-70 octane		.06½

CALIFORNIA (domestic movement)—

54-58 U. S. Motor	.06½	.08
58-60 400, 65 oct. and higher	.07½	.09

EAST COAST (domestic)—

U. S. Motor, 65 and above:		
*New York (Bayonne)	.06	.06¼
Philadelphia	.06	.06¼
Baltimore	.06	.06¼
Charleston, S. C.	.06½	.06¾

*All grades of gasoline ⅛ to ¼ cent less for barge shipments. New York Harbor prices are for New York and New England delivery. Prices for New Jersey delivery ¼ cent lower.

GULF COAST (domestic)—

U. S. Motor grades:		
Below 60 octane	.04¼	.04⅜
60-64.9		.04½
65 octane and higher	.05⅛	.05¼
68-70	.05⅛	.05½

Naphtha

PENNSYLVANIA (inland refineries)—

52-56 450 (blending)	.04¼	.04½

Natural Gasoline

OKLAHOMA (Group 3)—

Grade 26-70		.02¾
Grade 18-55		.03¼

NORTH TEXAS—

Grade 26-70		.02¾
Grade 18-55		.03¼

CALIFORNIA—

75-85 375-390	.06	.06¾

NORTH LOUISIANA (Ark. and N. La. delivery)—

Grade 26-70		.03⅛

Tractor Fuel

OKLAHOMA (Group 3)—

40-42 gr., 315-325 i.b.p., 110-flash, 540-550 e.p.	.03⅜	.03⅝
41-43 gr., 300-320 i.b.p., 110-125 flash, 500-520 e.p.	.03½	.03¾
46-48 gr., 210-230 i.b.p., 480-max., e.p.	.03⅞	.04⅛

Kerosene

(All kerosene water white)

OKLAHOMA (Group 3)—

41-43	.03⅛	.03⅜
42-44	.03¾	.03⅞

NORTH TEXAS—

41-43	.03⅛	.03⅜

NORTH LOUISIANA (Ark. and N. La. delivery)—

41-43	.04	.04¼

ARKANSAS (Ark. and N. La. del.)—

41-43		.04¼

PENNSYLVANIA (inland refineries)—

45	.05	.05⅛
46	.05⅛	.05¼
47	.05¼	.05⅜

CHICAGO (Based on Group 3)—

41-43	.03¾	.03⅞
42-44	.03⅞	.04

CALIFORNIA (Pac. Coast market)—

38-43 high burning test	.04¾	.05¾

NEW YORK (Bayonne, N. J.)—

41-43		.04⅜

***GULF COAST (domestic)—**

41-43		.03½

*Barge price ⅛ cent lower.

Furnace Oil

OKLAHOMA (Group 3)—

Range oil	.03⅜	.03½
No. 1 prime white, 38-42	.03⅛	.03⅜
No. 1 straw, 38-40	.03⅛	.03¼
No. 2 straw, 32-36	.02¾	.03
No. 2 dark, 32-36	.02⅝	.02⅞
No. 3 zero to 15, 28-32	.02½	.02⅝
No. 3, 15 and above, 28-32	.02⅜	.02½

NORTH TEXAS—

No. 1 prime white, 38-42	.03⅛	.03⅜
No. 1 straw, 38-40	.03⅛	.03¼

NORTH LOUISIANA (Ark. and N. La. delivery)—

No. 2, 32-36		.03

ARKANSAS (Ark. and N. La. del.)—

No. 2, 32-36		.03⅜

CHICAGO (Based on Group 3)—

Range oil	.03⅜	.03⅞
No. 1 prime white, 38-40	.03½	.03⅝
No. 1 straw, 38-40	.03⅜	.03½
No. 2 straw, 32-36	.03¼	.03⅜
No. 2 dark, 32-36	.03⅛	.03¼
No. 3, zero to 15, 28-32	.03	.03⅛
No. 3, 15 and above, 28-32	.02¾	.02⅞

NEW YORK (Bayonne, N. J.)—

*No. 1	.04	.04¼
*No. 2		.03¾
*No. 4		.03¼

*Barge deliveries ⅛ to ¼ cent under above tankcar price.

Gas Oil and Fuel Oil

(Gas oil per gal., fuel oil per bbl.)

OKLAHOMA (Group 3)—

U.G.I. gas oil	.02½	.02⅝
No. 4 low pourpoint, 24-28	.90	1.00
No. 4, 15 and above, 24-28	.80	.90
No. 5, low pourpoint, 18-22	.70	.75
Below 14 fuel oil, industrial	.45	.55

NORTH TEXAS—

U.G.I. gas oil	.02½	.02⅝
No. 4, low pourpoint, 24-28	.90	1.00
No. 5, low pourpoint, 18-22	.70	.75
Below 14 fuel oil, industrial	.45	.55

NORTH LOUISIANA (Ark. and N. La. delivery)—

10-14 fuel oil, industrial	.70	.75

CHICAGO (Based on Group 3)—

U.G.I. gas oil	.02⅝	.02¾
No. 4, low pourpoint, 24-28	1.00	1.05
No. 4, 15 and above, 24-28	.85	.90
No. 5, low pourpoint, 18-22	.70	.80
No. 5, 15 and above, 18-22	.60	.70
No. 6, low pourpoint, 10-16	.60	.70
No. 6, 15 and above, 10-16	.35	.45

PENNSYLVANIA (inland refineries)—

36-40	.04½	.04¾

CALIFORNIA—

Los Angeles:		
30-40 gas oil, per bbl.	1.10	1.30
24 plus Diesel, per bbl.	.80	1.15
24 plus Diesel (bunkers)	1.15	1.30
12-16 (bunkers at tidewater)	.70	.90
10-16 (cargo lots)	.60	.80
12-17 (tankcars)	.50	.90
10-17 (high sulfur)	.45	.85
San Joaquin Valley:		
10-18 (tankcars)	.50	.75
24 plus Diesel, per bbl.	.90	1.20
San Francisco:		
24 plus Diesel, per bbl.	1.30	1.45
24 plus Diesel (bunkers)	1.35	1.55
10-16 (bunkers)	.90	.95

GULF COAST—

No. 2 fuel	.03½	.03¾
43-47 Diesel		.03½
48-52 Diesel	.03¼	.03½
53-57 Diesel	.03⅜	.03½
Bunker C (bulk cargoes)	.77	.80
Bunker C (bunkers)	.80	.85

NEW YORK (Bayonne, N. J.)—

27 plus, gas oil		.03¾
28-30 Diesel (lighterage 6¼c per bbl.)		1.65
28-30 Diesel (tankcars)	.04	.04¼
Bunker C (to ocean-going ships in N. Y. Harbor)		1.05
Industrial fuel (tankcars)		.03¼

Lighterage charge 5c bbl. additional.

Bright and Steam Refined

OKLAHOMA (Group 3)—

190-200 D, 15-25		.19
150-160 D, 0-10	.14¼	.16
150-160 D, 15-25	.13½	.15½
150-160 E, 15-25	.13	.15
100-110 D, 0-10		.14½
Steam refined:		
631 green (treated)		.12½
600 dark green (untreated)	.04½	.05

PENNSYLVANIA—

Bright Stocks (Pennsylvania Grade No. 8 color, 140-150 at 210, 545-550 flash):		
10 pourpoint	.18	.18½
15 pourpoint	.17	.17½
25 pourpoint	.15½	.16
Steam refined:		
600	.08½	.10
650	.10½	.11
600 flash	.11	.12
630 flash	.13½	.14

Neutral Oil

(Vis. at 100° F. except Pennsylvania and color N.G.A.)

OKLAHOMA (Group 3)—

150-3		.09
180-3		.10
180-4		.09½
200-3		.10½
200-4		.10
250-3		.11½
250-4		.11
280-3		.12½
280-4		.12
300-6½		.13
400-3½		.14
100-2½ paraffin oil		.06
15-20 pourpoint:		
200-3		.10
200-4		.09½
250-3		.11
250-4		.10½
280-3		.12
280-4		.12½

GULF COAST—

Pale oils:		
200-3	.07	.07¼
300-3	.07½	.07¾
500-3½	.08½	.08¾
750-3½	.08⅝	.09¼
1,200-3½	.09½	.09¾
1,500-4	.09¾	.10
Red oils:		
200-5-6	.07¼	.07½
300-5-6	.07¼	.07½
500-5-6	.08	.08⅛
750	.08¾	.09
1,200-5-6	.09¼	.09½

CALIFORNIA (moving to dom. market)—

Pale oils:		
100-2½-3	.07¼	.08
200-2½-3	.07¼	.08
300-2½-3	.07¼	.08
400-3-4	.07¼	.08
450-3-4	.07¼	.08
550-3-4	.09	.11
600-3-4	.09	.11
Red oils:		
200-4-5	.07¼	.08
300-5-6	.07¼	.08
350-5-6	.09¼	.11½
400-5-6	.09¼	.11½
450-5-6	.09¼	.11½
500-5-6	.09¼	.11½
600-5-6½	.09¼	.11½
700-6½ plus	.09¼	.11½
750-6½ plus	.09¼	.11½
900-6½ plus	.09¼	.11½

PENNSYLVANIA—

150 vis. at 70° F., 3 color, 400-405 flash:		
Zero pourpoint	.18½	.19
10 pourpoint	.18	.18½
15 pourpoint	.16½	.17
25 pourpoint	.15	.15½
200 vis. at 70° F., 3 color:		
Zero pourpoint	.19½	.20
10 pourpoint	.19	.19½
15 pourpoint	.18½	.19
25 pourpoint	.17	.17½

Wax and Petrolatum

(Prices per pound)

OKLAHOMA (Group 3)—

124-126 (a.m.p.) w.c. scale		.03

PENNSYLVANIA (inland refineries)—

122-124 (a.m.p.) w.c. scale	.0290	.03
124-126 (a.m.p.) w.c. scale		.03

NEW YORK—

Wax in bags fully refined:		
122-125 (a.m.p.) wax		.0350
125-127 (a.m.p.) wax		.0360
128-130 (a.m.p.) wax		.0375
130-132 (a.m.p.) wax		.0435
133-135 (a.m.p.) wax		.0465
135-137 (a.m.p.) wax		.0490
124-126 (a.m.p.) w.s.	.0290	.03
124-126 (a.m.p.) y.s.	.0295	.03
Petrolatum in barrels, carload lots:		
Dark green	.02	.02⅛
Amber	.02¾	.02⅞
Extra amber	.02⅝	.02¾
Lily white	.05¼	.05¼
Snow white	.06¼	.06¼
Cream	.04⅛	.04¼

Export Prices

GASOLINE

GULF COAST—

U. S. Motor	.04¼	.04⅜
60-62 400	.04½	.04⅝
65 octane	.04⅞	.05
68 octane	.05⅛	.05¼
70 octane	.05¼	.05½

LOS ANGELES—

U. S. Motor grades:		
55-65 octane	.04½	.04¾
65-69 octane	.04¾	.05
Above 69 octane	.05	.05½

KEROSENE

GULF COAST—

41-43 prime white		.03½
41-43 water white		.03⅞

LOS ANGELES—

41-43 water white	.05	.05¼

LUBRICANTS

(Pennsylvania Grade)

NEW YORK (f.o.s. in bbls.)—

Cylinder stocks:		
600 Warren E	.15	.15½
600 S.R. unfiltered	.16	.16½
630 S.R. unfiltered	.17	.17½
600 flash, S.R.	.17	.17½
630 flash, S.R.	.20½	.21
Bright stocks:		
8 color	.16¼	.16½

NEUTRAL OIL

200-3 color	.21½	.22
150-3 color	.19½	.20

PARAFFIN WAX

NEW YORK (prices per pound)—

123-125 a.m.p.		.0375
125-127 a.m.p.		.0387
128-130 a.m.p.		.0412
133-135 a.m.p.		.0437
135-137 a.m.p.		.0455
Crude scale:		
124-126 w.s.	.0290	.03
124-126 y.s.	.0295	.03

Crude Oil Prices

Oklahoma, Kansas, North Central and East Central Texas

East Texas (Oct. 11, 1938)* $1.10
Van, Tex. (Oct. 11, 1938)* ..... .93
Talco, Tex. (Oct. 11, 1938)* ..... .55
Rodessa, Tex. .....
See North Louisiana gravity schedule
Cass and Panola counties, Texas ....
See gravity schedule
Altus and Tipton† ..... See note below
Cayuga, Tex. (Feb. 15, 1939) $0.68
Clay Creek, Tex. ..... .85

*Humble Oil & Refining Co. †Gulf Refining Co. Pure Oil Co.'s Van price, 93 cents, effective Oct. 13, 1938.

Altus and Tipton, Oklahoma, starting at below 25° at 71 cents, 2-cent spread to 40° and above at $1.03. East Texas price met by all buyers posting prices. Talco price adopted by Talco Pipe Line on Oct. 11. Cayuga posted by Pan American Pipe Line Co. Clay Creek posted by Sun Oil Co.

Southwest Texas

Salt Creek, Darst Creek, Hilbig, Carroll, Clark and Zoboroski (Oct. 11, 1938)* $0.96
Pettus (Oct. 11, 1938)* 1.29
Flour Bluff (Dec. 3, 1938)* 1.23
Darst Creek (Oct. 12, 1938)† ..... .96
Darst Creek and Bruner (Oct. 13, 1938)‡ ..... .96
Luling (Oct. 12, 1938)† ..... .87
Lytton Springs (Oct. 12, 1938)† ..... .99
Mirando (Oct. 12, 1938)† .....
Government Wells (Oct. 13, 1938) ....
See note below

*Humble Oil & Refining Co. †Magnolia Petroleum Co. Pettus price adopted by Atlantic Crude Oil Purchasing Co. ‡Gulf Refining Co.

Government Wells posted by Sun Oil Co. starts at 20° at 77 cents, 3-cent spread to 24°-24.9° at 89 cents.

Gulf Coast

Conroe, Tex. (Oct. 11, 1938)* $1.27
Black Bayou and White Castle, La. (Oct. 11, 1938)† ..... See note below
Gibson, La. (Oct. 11, 1938)† $1.04
Garden Island, La. (Oct. 12, 1938)‡ .. 1.24
Lafitte, La. (Oct. 12, 1938)‡ 1.04
Cleveland, Tex. (Oct. 12, 1938)¶ 1.14
Schwab, Polk County (Feb. 20, 1939) 1.00
Hardin, Tex. (Oct. 12, 1938)¶ 1.02
Tepetate, La. (Oct. 11, 1938)§ 1.03
Villa Platte, La. (Oct. 11, 1938)§ 1.03
Abbeville, La. (Jan. 1, 1939)§ .....
See note below
Bosco, La. (Dec. 3, 1938)¶ $0.93
Creole, La. (Oct. 13, 1938)¶ ..... .96
Gueydan, Sweet Lake, and Louise, La. (Oct. 13, 1938)¶ ..... See note below
Vinton, Edgerly, Starks, Hackberry, Timbalier Bay, Quarantine Bay, and Grand Bay, La. (Oct. 13, 1938)** .....
Long Lake, Tex. (Oct. 13, 1938)** ... $1.08
Segno and Wing (Oct. 13, 1938)** ...
See note below
Livington (Oct. 11, 1938)† $1.10
Gibson, La. (Oct. 11, 1938)† 1.04

*Humble Oil & Refining Co. †Shell Oil Co., Inc. ‡Texas Co. §Continental Oil Co. ¶Pure Oil Co. ¶Magnolia Petroleum Co. **Gulf Refinery Co.

Black Bayou, etc., starts at below 20° at 79 cents; 20°-20.9°, 81 cents; 21°-21.9°, 83 cents; then a 3-cent spread to 26°-26.9°, 98 cents; then a 2-cent spread to 40° and over at $1.14. Abbeville starts at below 30°, 92 cents, 2-cent spread to 40° and over at $1.02. Gueydan, etc., starts below 20°, 79 cents, 3-cent spread to 26°-26.9° at $1, and 2-cent spread to 40° and over at $1.28. Segno and Wink take Gulf Refining Co.'s Gulf Coast prices. Vinton, Edgerly, etc., schedule starts at below 18°, 75 cents, 2-cent spread to 20°-20.9° at 82 cents; then a 3-cent spread to 26°-26.9° at $1; then a 2-cent spread to 34° and over at $1.16. Schwab posted by Shell Oil Co., Inc.

North Louisiana and Arkansas

Shreveport, La. (Apr. 18, 1939) $1.05
Smackover, Ark. (Oct. 5, 1938)* ..... .73
Buckner, Magnolia, and Village, Ark. (Oct. 5, 1938)* ..... See note below
Schuler, Jones sand ..... See note below
Tullos and Urania $0.89
Cotton Valley, La. (distillate) (Dec. 23, 1938)* 1.20
Lisbon, La. (Apr. 29, 1939) .....
See note below

*Smackover posted by Standard Oil Co. of Louisiana, Oct. 5, 1938; by Magnolia Petroleum Co., Oct. 12; by Gulf Refining Co., Oct. 13; McMillan Refining Co. and Cross Refining Co. met price. Tullos and Urania posted by Hunt Oil Co. and Arkansas Fuel Oil Co.

Schuler Jones sand schedule starts at below 25°, 66 cents, with 2-cent spread to 40° and over at 98 cents; by Lion Oil Refining Co. on Oct. 5, 1938; Schuler light Morgan sand crude takes North Louisiana gravity scale along with El Dorado and Champagnolle; by Lion Oil Refining Co., Oct. 5; Buckner, Magnolia, and Village schedules posted by Standard Oil Co. of Louisiana and Lion Oil Refining Co. on Oct. 5; quote same prices as for Schuler Jones sand crude. Shreveport by Caddo Crude Oil Purchasing Co. and Atlas Oil Corp. Lisbon: Caddo Crude Oil Purchasing Co., posts below 34°, 73 cents; 34°-34.9°, 75 cents; 35° and above, 77 cents. Effective May 1, 1939, Gulf Refining Co. posted a flat price of 77 cents in Lisbon.

Middle Western States

OHIO OIL CO.
(Effective June 8, 1939)

Illinois old fields $0.95
Illinois basin 1.05
Princeton, Ind. ..... .95
Western Kentucky (June 9, 1939)† .. .90
Birk City, Ky. (June 9, 1939)¶ ..... .90
Corydon, Ky. (June 9, 1939)¶ $0.90
Greendale, Porter, Crystal and Wise, Mich. (Apr. 20, 1938)*† .. .975
Buckeye, Bentley, Edenville, Beaverton, Mich. (Apr. 20, 1939)* ..... .95
Freeman-Redding, Mich. (Apr. 20, 1939)* ..... .89
West Branch and Arenac, Mich. (Apr. 20, 1939)* ..... .74
Allegan-Kent (Apr. 16, 1939)¶ ..... .88
Bloomingdale (Apr. 10, 1939) ..... .88
Muskegon 1.00
Sherman, Mich. (Apr. 20, 1939)‡ .... .89
Eastern Kentucky:
Big Sandy River (June 9, 1939)† .. 1.02
Kentucky River (June 9, 1939)† .. 1.10

*Simrall Corp. †Ashland Refining Co. ‡Pure Transportation Co. pays above posted prices in Porter, Greendale and Sherman, effective Apr. 20. §Imperial Refining Co. ¶Sohio Oil Co. Bloomingdale posted by Tri-Lakes Corp. Kent County by Naph-Sol Refining Co.

West Texas

See gravity table.
Fisher County, Texas (Apr. 1, 1939) .....
See note below
Pecos County (Oct. 11, 1938)* $0.78
Pecos shallow (Oct. 11, 1938)† ..... .65

*Shell Oil Co., Gulf Pipe Line Co. and Humble Oil & Refining Co. †Shell Oil Co.

Fisher County, Texas, by Shell Oil Co., Inc., below 25°, 68 cents; 25°, 70 cents, with 2-cent spread to 40° and over at $1.

Rocky Mountain States

Dry Creek, Wyo. (Oct. 11, 1938)* ... $0.92
Elk Basin, Wyo. (Oct. 11, 1938)*† .... .90
Grass Creek, light, Wyo. (Oct. 11 1938)*† ..... .90
Grass Creek, heavy (Oct. 11, 1938)† . .40
Lance Creek, Wyo. (Oct. 11, 1938)* . .77
Rock Creek, Wyo. (Oct. 11, 1938)* .. 1.00
Iles, light, Colo. (Oct. 11, 1938)† .... .98
Iles, heavy, Colo. (Oct. 11, 1938)† ... .92
Dutton Creek, Wyo. (Oct. 11, 1938)† .....
See note below
Frannie, light, Wyo. (Oct. 11, 1938)† $0.55
Frannie, heavy, Wyo. (Oct. 11, 1938)† ..... .42
Hamilton dome, Wyo. (Oct. 11, 1938)† ..... .35
Midway, Wyo. (Oct. 11, 1938)† .....
See note below
Salt Creek Tensleep crude, Wyo. (Oct. 11, 1938)† $0.646
Salt Creek (Oct. 11, 1938) See note below
Canon City, Colo. (Oct. 11, 1938)‡ .. $0.90
Florence, Colo. (Oct. 11, 1938)‡ .... .90
Cat Creek, Mont. (Oct. 11, 1938)‡ ... 1.10
Big Muddy, Wyo. (Oct. 11, 1938)‡ ... .98
Lance Creek, Wyo. (Oct. 11, 1938)‡ . .77
Lea County, New Mexico .....
See West Texas gravity schedule‡
Artesia, Jackson and Maljamar .....
See gravity table‡
Fort Collins and Wellington, Colo. ...
See gravity table‡
Eddy County, New Mexico (Oct. 11, 1938)§ $0.77
*Ohio Oil Co. †Stanolind Oil & Gas Co. ‡Continental Oil Co. §Sinclair Prairie Oil Marketing Co.

Dutton Creek and Salt Creek Tensleep crudes start at below 29°, 86 cents, 2 cents spread up to 40° and over at $1.10. Salt Creek crude, excepting Tensleep, takes Standard Oil Co. of Indiana's Oklahoma-Kansas prices. Stanolind Oil & Gas Co., effective Oct. 11, discontinued posting prices in Greybull-Torchlight, Wyoming, and Hogback and Hospah, New Mexico.

Eastern States

SOUTH PENN OIL CO.
(Effective Mar. 6, 1939)

Pennsylvania Grade oil in National Transit lines (Bradford field) $2.00
Pennsylvania Grade oil in Southwest Pennsylvania lines 1.65
Pennsylvania Grade oil in Eureka Pipe Line lines 1.59
Pennsylvania Grade oil in Buckeye Pipe Line lines 1.55
Corning grade oil in Buckeye Pipe Line Co. line (Jan. 24) 1.02

TIDE WATER ASSOCIATED OIL CO. and NEW YORK TRANSIT CO
(Effective Mar. 6, 1939)

Bradford, Pa. $2.00
Allengany, N. Y. 2.00

PENNZOIL CO.
(Effective Mar. 6, 1939)

Group A $1.95
Group B 1.94
Group C 1.93
Group D 1.92
Group E 1.90

PURE OIL CO.
(Effective Mar. 6, 1939)

West Virginia $1.59

Canada

TURNER VALLEY
(Jan. 5, 1938, by Imperial Oil, Ltd.)

Clear naphtha and discolored naphtha, 65° and higher $2.14
Discolored naphtha and crude oil, 40°-40.9° 1.14
Increasing 2 cents for each degree gravity with top price for 64°-64.9° 1.62
These prices f.o.b. producers' field tankage.

Crude Oil Price Changes

The Naph-Sol Refining Co. increased its posted price for crude oil in the Kent County, Michigan, fields 10 cents per barrel, or to 88 cents, effective June 19. It meets the Imperial Refining Co. price posted April 16.

Tank-Wagon Changes

(Continued from Page 128)

net dealer and consumer tank-wagon gasoline 1 cent in Jackson; same date, reduced net dealer and consumer tank-wagon gasoline .5 cent in Vicksburg; June 9, reduced net dealer and consumer tank-wagon gasoline 1.5 cents in Macon; June 6, advanced consumer tank-wagon gasoline 1 cent in Montgomery; June 12, advanced net dealer and consumer tank-wagon gasoline .5 cent in Louisville.

Standard Oil Co. (Indiana) June 17 advanced tank-wagon and dealer gasoline .5 cent in Milwaukee, Detroit, Grand Rapids, and St. Louis; same date, advanced dealer gasoline .5 cent in Saginaw; same date, advanced dealer gasoline, .4 cent in St. Joseph; June 8, reduced it 3.6 cents; May 23, advanced kerosene .1 cent in Quincy; April 28, advanced tank-wagon kerosene .5 cent in St. Joseph.

Socony-Vacuum Oil Co., Inc., June 9 advanced consumer tankcar gasoline as follows: Albany, metropolitan New York (including Manhattan, Bronx, Queens, Brooklyn, Staten Island), Boston, Manchester, Burlington, Springfield, Hartford, New Haven, Providence .1 cent; Worcester, .3 cent: Portland, 1.1 cents. June 13, company made following changes in dealer tank-wagon prices: Advanced Albany, .3 cent; advanced Manhattan, Bronx, Queens, Brooklyn, Rochester, Manchester, Providence, .2 cent; advanced Boston .25 cent; reduced Portland .1 cent; advanced Springfield .5 cent; reduced Worcester .3 cent. June 15, company advanced tankcar gasoline .1 cent and reduced dealer tank-wagon gasoline .7 cent in Syracuse. Same date, company advanced tank-wagon kerosene 1 cent in Buffalo; April 21, reduced tank-wagon kerosene 1.5 cents in Springfield.

Crude Prices by Gravities

	1 Oklahoma	2 Oklahoma and Kansas	3 North and Central Texas	4 Louisiana and Arkansas	5 East Central Texas	6 Gray County, Texas	7 Hutchinson and Carson counties, Texas	8 Raccoon Bend, Saturana and Tomball, Texas	9 West Texas and Lea County, N. M.	10 Fort Collins and Wellington, Colo.	11 Anahuac and Dickinson, Mirando, Duval, Texas.	12 Refugio, Texas	13 Gulf Coast Texas	14 Cass and Panola counties, Texas	15 Beaumont and West Beaumont, Texas	16 Lockport, Iowa, Cameron Meadows, Louisiana	17 Artesia, Jackson and Maljamar, N. M.	18 Iowa, Louisiana
Below 18	....	....	....	....	....	....	....	....	$.53	....	$.74	$.79	$.79	....	....	$.74	....	$.75
18-18.9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.76	....	.77
19-19.9	....	....	....	....	....	....	....	....	.53	....	.74	.79	.79	....	$.79	.78	....	.79
20-20.9	$.60	$.70	....	....	....	....	....	....	.55	....	.77	.82	.82	....	.82	.80	....	.81
21-21.9	.63	.72	....	....	....	....	....	....	.57	....	.80	.85	.85	....	.85	.82	....	.83
22-22.9	.66	.74	....	....	....	....	....	$.95	.59	....	.83	.88	.88	....	.88	.85	....	.86
23-23.9	.69	.76	....	....	$.78	....	....	.97	.61	....	.86	.91	.91	....	.91	.88	....	.89
24-24.9	.72	.78	$.71	....	.80	....	....	.99	.63	....	.89	.94	.94	....	.94	.91	....	.92
Below 25	....	....	....	$.73	....	....	....	....	....	....	....	....	....	$.73	....	....	....	....
25-25.9	.75	.80	.73	.75	.82	....	....	1.01	.65	....	.92	.97	.97	.75	.97	.94	....	.95
26-26.9	.78	.82	.75	.77	.84	....	....	1.03	.67	....	.95	1.00	1.00	.77	1.00	.97	....	.98
27-27.9	.81	.84	.77	.79	.86	....	....	1.05	.69	....	.97	1.02	1.02	.79	1.02	.99	....	1.00
28-28.9	.84	.86	.79	.81	.88	$.72	$.67	1.07	.71	$.81	.99	1.04	1.04	.81	1.04	1.01	$.61	1.02
29-29.9	.87	.88	.81	.83	.90	.74	.69	1.09	.73	.83	1.01	1.06	1.06	.83	1.06	1.03	.63	1.04
Below 30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
30-30.9	.90	.90	.83	.85	.92	.76	.71	1.11	.75	.85	1.03	1.08	1.08	.85	1.08	1.05	.65	1.06
31-31.9	.92	.92	.85	.87	.94	.78	.73	1.13	.77	.87	1.05	1.10	1.10	.87	1.10	1.07	.67	1.08
32-32.9	.94	.94	.87	.89	.96	.80	.75	1.15	.79	.89	1.07	1.12	1.12	.89	1.12	1.09	.69	1.10
33-33.9	.96	.96	.89	.91	.98	.82	.77	1.17	.81	.91	1.09	1.14	1.14	.91	1.14	1.11	.71	1.12
34-34.9	.98	.98	.91	.93	1.00	.84	.79	1.19	.83	.93	1.11	1.16	1.16	.93	1.16	1.13	.73	1.14
Below 35	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
35-35.9	1.00	1.00	.93	.95	1.02	.86	.81	1.21	.85	.95	1.13	1.18	1.18	.95	1.18	....	.75	....
36-36.9	1.02	1.02	.95	.97	1.04	.88	.83	1.23	.87	.97	1.15	1.20	1.20	.97	1.20	....	.77	....
37-37.9	1.04	1.04	.97	.99	1.06	.90	.85	1.25	.89	.99	1.17	1.22	1.22	.99	1.22	....	.79	....
38-38.9	1.06	1.06	.99	1.01	1.08	.92	.87	1.27	.91	1.01	1.19	1.24	1.24	1.01	1.24	....	.81	....
39-39.9	1.08	1.08	1.01	1.03	1.10	.94	.89	1.29	.93	1.03	1.21	1.26	1.26	1.03	1.26	....	.83	....
40 and over	1.10	1.10	1.03	1.05	1.12	.96	.91	1.31	.95	1.05	1.23	1.28	1.28	1.05	1.28	....	.85	....

Market Record of Active Oil Stocks

Compiled by Carl H. Pforzheimer & Co., 25 Broad Street, New York City, Member New York Stock Exchange and New York Curb Exchange

New York Stock Exchange

1939 High	1939 Low	Week ending June 17 High	Week ending June 17 Low	Week ending June 17 Close	Stocks—	Total shares outstanding	Par value	Latest dividend	Payable or last paid	Dividends paid in 1938	Com. sh. earn. 1938	Com. sh. earn. 1937	1938 High	1938 Low	1937 High	1937 Low
70	50	68⅝	67	67¼	Amerada Corp.	788,675	N.P.	50cQ	1-31-39	$2.00	$2.07	$3.04	78	55	111⅞	51½
23½	18½	21⅛	19¾	20	Atlantic Refining	2,663,999	$25	25cQ	6-15-39	1.00	1.40	3.51	27⅝	17¾	37	18
21½	10⅞	13⅛	12⅝	13	Barber Asphalt Co.	390,223	$10	75c	12-16-37	....	—.85	1.91	23¾	12⅛	43¾	10⅛
19½	12⅜	14⅜	13⅞	14	Barnsdall Oil Co.	2,250,344	$5	25cQ	2-1-39	1.00	1.26	.85	21⅝	10⅛	35¼	10
9¼	7	8	7½	7⅞	Consolidated Oil Corp.	13,751,846	N.P.	20cQ	8-15-39	.80	.55	1.48	10¾	7	17⅞	7
31½	21¼	24¼	23	23½	Continental Oil of Delaware	4,682,581	$5	25cQ	6-27-39	‖1.00	1.10	2.98	35⅝	21¼	49	24
8⅜	4⅞	6⅛	5¾	5¾	Houston Oil (new)	1,098,618	$25	....	10-17-30	....	.83	.94	9¾	5	17⅝	4¾
20¼	12⅝	14½	14½	14½	Lion Oil Refining	435,815	N.P.	25cQ	4-20-39	1.00	2.09	2.17	25½	15⅝	34	12½
16½	11½	14	13½	13½	Mid-Continent Petroleum	1,857,912	$10	25c	6-1-39	.60	.56	2.86	22⅝	12¼	35⅝	14
14⅞	10⅜	11⅜	11	11	Mission Corporation	1,379,245	$10	25c	6-29-39	1.00	1.04	1.31	17⅝	10⅝	34	15
15½	6½	8½	7⅜	7½	National Supply	1,155,517	$10	$2 pf.‡	12-22-37	....	—.79	4.90	23	12½	41⅜	17⅝
10¼	6⅝	7¼	7	7	Ohio Oil Co.	6,563,377	N.P.	20c	12-15-38	.20	.25	1.30	14⅞	8⅞	22⅞	8
34⅜	27½	9½	9⅛	9⅛	Pacific Western Oil	1,000,000	N.P.	50c	12-20-38	.50	1.22	1.39	15⅞	10¼	29⅜	11⅝
6⅜	5½	..	..	..	Pan American Pet. & Trans.	4,702,945	$5	$1*	12-21-37	....	.08	1.18	9¼	6¼	17⅛	7
43⅜	31¼	36½	35	35¼	Phillips Petroleum	4,449,052	N.P.	50cQ	6-1-39	‖2.00	2.03	5.42	44⅝	27¼	64	30⅛
22½	17¼	20	19¾	19⅞	Plymouth Oil Co.	1,006,200	$5	35cQ**	6-30-39	1.40	2.59	2.85	25⅝	15	29⅞	13
11¾	7	7⅜	7¼	7⅝	Pure Oil Co.	3,982,031	N.P.	25c	12-1-37	....	.38	2.15	13½	8¼	24⅝	8⅝
10¼	6⅝	8¼	7⅝	8	Richfield Oil Corp.	4,010,000	N.P.	50c	12-21-38	.50	.51	.35	9⅞	5	6½	4⅛
22⅜	16⅛	19½	18	18	Seaboard Oil of Delaware	1,244,383	N.P.	25cQ	6-15-39	1.00	1.52	1.97	27½	15½	54⅛	16
15⅜	10⅜	11⅜	11	11	Shell Union Oil	13,070,625	N.P.	35c	12-20-38	.70	.72	1.44	18⅜	10	34⅜	14⅞
29½	18½	21	19¾	20	Skelly Oil	995,349	$15	50c	12-15-38	1.00	2.27	6.07	34⅜	18½	60⅝	26½
13¾	10½	12	11½	11¾	Socony-Vacuum	31,206,071	$15	25cSA	3-15-39	.50	1.29	1.82	16⅜	10¾	23¼	13
30⅛	25¼	26⅜	25⅜	26⅛	Standard Oil of California	13,004,153	N.P.	30cQ†	3-15-39	1.40	2.22	3.17	34⅞	25⅛	50	27⅛
29⅛	23¼	26⅛	24⅝	24¾	Standard Oil (Indiana)	15,272,020	$25	25cQ	6-15-39	1.00	1.82	3.66	35½	24¾	50	26½
50⅝	46	..	..	..	Standard Oil of Kansas	106,190	$10	$2	12-8-38	2.00	5.25	6.93	50¼	32½	43	30⅝
53¼	41⅞	45⅛	42	42½	Standard Oil of New Jersey	26,618,065	$25	50c§	12-15-38	§1.50	2.86	5.64	58⅜	39¾	76	42
66	46	51	50	51	Sun Oil	2,316,484	N.P.	25cQ	6-15-39	1.00	1.07	3.86	65⅛	45	77½	44½
3¼	2	2⅛	2	2	Superior Oil Corp.	1,388,979	$1	10c	12-28-38	.10	.24	.32	4¼	1⅜	7⅝	1⅛
48¼	35	39⅝	38	38⅜	Texas Corp.	10,876,882	$25	50cQ	7-1-39	2.00	2.13	5.02	49⅝	32⅜	65⅛	34⅜
5⅜	3½	4¼	3⅞	4¼	Texas Gulf Producing Co.	888,142	N.P.	10c	6-15-39	.15	.86	.68	5⅜	2⅝	9⅝	2
10⅛	7½	8	7¾	7⅞	Texas Pacific Coal & Oil	888,236	$10	10c	6-1-39	.40	1.16	1.11	12½	7	16⅝	5⅜
14¼	11¼	12⅜	12¼	12½	Tide Water Associated	6,375,253	$10	25c	6-1-39	1.00	1.28	2.08	15⅜	10½	21⅝	13⅛
19⅜	16¼	16⅞	16½	16⅝	Union Oil of California	4,666,270	$25	25c	5-10-39	1.20	1.47	2.58	22½	17⅛	28¼	17½
23⅝	20⅛	22	21½	21⅞	Union Tank Car Co.	1,177,381	N.P.	30cQ	3-1-39	1.30	1.16	1.70	23½	20	31½	22
3⅜	2½	3⅛	2⅜	2⅜	Wilcox Oil & Gas	487,568	$5	....	5-10-28	....	.52	.24	3½	1⅝	6¼	1⅜

*Payable in 3½ per cent notes. †Includes extras. ‡One-tenth share $2 preferred stock. §Also 1⅛ per cent stock dividend. ‖Also right to subscribe to bonds. ¶Also 1 per cent in stock. **Also 2 per cent in stock. —Deficit.

New York Curb Exchange

1939 High	1939 Low	Week ending June 17 High	Week ending June 17 Low	Week ending June 17 Close	Stocks—	Total shares outstanding	Par value	Latest dividend	Payable or last paid	Dividends paid in 1938	Com. sh. earn. 1938	Com. sh. earn. 1937	1938 High	1938 Low	1937 High	1937 Low
9	5½	7¼	7	7	American Republics Corp.	1,308,049	$10	10c	7-11-38	$0.10	—$0.22	$0.27	11⅜	5	10	6⅝
7⅛	3½	4¼	4⅛	4¼	Bridgeport Machine Co.	270,000	N.P.	$1.25	12-30-37	....	—.14	1.90	10¼	4⅞	21⅝	7
34¾	27¼	33	32	33	Buckeye Pipe Line Co.	200,000	$50	50c	3-15-39	2.00	2.36	4.02	39	22½	51½	36
130	110	113¾	111	112	Chesebrough Mfg. Co.	120,000	$25	$1.50Q†	6-26-39	6.50	5.32	6.73	128	97	112	95½
9¼	5⅞	6	5¾	5¾	Cities Service (new)	3,704,067	$10	....	6-1-32	....	.23	1.02	11	5⅛	5⅝	1⅛
1¼	½	1¼	1	1¼	Cosden Petroleum	462,551	$1	....	.....	....	....	.19	2⅜	⅞	5½	1⅛
23¾	17½	20¼	19⅜	19⅜	Creole Petroleum	6,975,383	$5	50cSA†	6-15-39	1.00	1.64	1.61	27½	17½	38⅜	20¼
7⅛	5	4¾	4⅜	4½	Darby Petroleum	351,390	$5	25cSA	1-15-39	.50	....	1.36	10¼	5½	18⅝	6½
2⅜	1⅝	2¼	2¼	2¼	Derby Oil & Refining	263,162	N.P.	....	.....	....	—.91	1.34	3½	1½	8⅜	2¼
20	15½	15½	15½	15½	Eureka Pipe Line	50,000	$50	50c	5-1-39	3.00	—.37	—.12	31	16	47½	24½
40	29¼	34½	32¼	32½	Gulf Oil Corp.	9,076,202	$25	25cQ	7-1-39	1.00	1.43	3.51	46⅞	33	63½	33
69⅜	53	63¼	62	62	Humble Oil & Refining	8,987,840	N.P.	37½c	7-2-39	3.00	3.98	5.22	72⅝	56	87	54⅞
17	14⅜	15⅜	14⅛	14⅛	Imperial Oil of Canada	26,965,078	N.P.	62½cSA†‡	6-1-39	1.25	.96	.98	19½	14⅛	24¼	14½
7	5⅝	6¼	6¼	6¼	Indiana Pipe Line	300,000	$10	30c	5-15-39	.50	.47	1.03	9⅜	6	15	5⅜
27½	21½	22⅞	20⅞	21½	International Petroleum	14,324,088	N.P.	1.00†‡	6-1-39	2.50	1.98	....	31¼	21	39½	23½
3½	4¼	..	..	..	Kirby Petroleum Co.	500,000	$1	10c	4-15-38	.10	.14	.17	5	2⅛	8⅜	2⅝
9½	7⅛	9⅛	9	9	Lone Star Gas	5,553,747	N.P.	20c	4-20-39	.60	.88	1.14	10⅜	6⅝	14¼	5¼
7⅝	4½	5⅜	5½	5½	Louisiana Land & Exp.	2,977,449	N.P.	10cQ	3-15-39	.45	.45	.58	9⅜	6½	15¼	6⅜
17	15	..	..	..	Margay Oil Corp.	149,943	N.P.	25cQ	4-10-39	1.00	2.28	3.26	24	16	33½	17
8⅜	7	7½	7¼	7¼	Midwest Oil Co.	998,474	$10	50c	12-15-38	1.00	.93	1.14	9¾	6⅝	14⅝	6¼
5½	4⅞	5¼	5¼	5¼	Mountain Producers	1,593,584	$10	30cSA	6-15-39	.60	.62	.76	5⅝	4½	7⅞	4⅛
13¼	11¼	11⅝	11⅜	11½	National Fuel Gas	3,810,183	N.P.	25cQ	4-15-39	1.00	.84	.96	14⅝	11½	19½	12
8½	7¼	8	7⅝	8	National Transit	509,000	$12.50	35c	6-15-39	.75	.88	1.19	9¼	6½	12½	7¼
1¾	1½	1½	1½	1½	New Mexico and Arizona	1,000,000	$1	1c	12-1-37	....	.02	.02	2⅝	1½	5	1⅛
4⅞	4	4	4	4	New York Transit	100,000	$5	15c	4-15-39	.25	.16	.49	4½	3½	5⅜	3⅜
6	4½	5½	5½	5½	Northern Pipe Line	120,000	$10	15c	6-1-39	.35	.24	.78	6	4	12⅜	5⅜
7⅝	4¼	6⅛	5½	5¾	Pantepec Oil	2,857,000	$1	....	.....	....	....	....	7¾	3½	9⅝	2⅜
2⅜	1¼	1⅞	1⅞	1⅞	Root Petroleum Co.	336,045	$1	25c	2-1-37	....	,17	—.17	4½	1⅝	12⅜	2
3	2⅛	..	..	..	Ryan Consolidated	298,931	N.P.	....	.....	....	.29	.46	4	2⅛	6½	2¼
4	3½	..	..	..	Southern Pipe Line	100,000	$10	15cSA	3-1-39	.30	—.27	.85	5⅜	3¼	7¼	3⅜
34⅞	27⅜	30	30	30	South Penn Oil	1,000,000	$25	37½cQ	3-31-39	1.75	1.44	4.64	39	28¾	56	35
19¾	17	19	19	19	Southwest Penna. Pipe Lines	35,000	$50	50cQ	7-1-39	2.00	—.41	.95	22¼	16½	42	20
18⅝	17¼	18⅛	17⅝	18	Standard Oil of Kentucky	2,604,790	$10	25c	6-15-39	1.25	1.45	1.60	18⅜	15	21⅛	17¾
10½	6	8½	8¼	8¼	Standard Oil of Nebraska	161,403	$25	25c	3-29-37	....	—.69	—.58	8¾	5½	13¾	8
21¼	17	20½	19¼	20½	Standard Oil of Ohio	753,740	$25	25c	3-15-39	1.00	1.81	3.67	22¾	16¼	45	16
2⅝	1⅞	2	1⅞	2	Sunray Oil	2,007,076	$1	5c	4-27-39	.05	.23	.42	3¼	2	4⅞	2
4	2⅝	3	3	3	Texon Oil & Land	936,024	$2	10c	6-30-39	.60	.56	.51	5¼	3½	7⅝	2
5½	2½	3¼	3⅛	3⅛	Transwestern Oil Co.	750,000	$10	....	.....	....	—.12	.48	7⅝	4¼	18⅞	4⅝
3⅜	1⅝	2	1⅞	1⅞	United Gas Corp.	7,818,959	$1	....	.....	....	—.51	.25	5¼	2⅝	13⅞	3

†Includes extras. ‡Payable in Canadian funds. §Of which $1 was in preferred stock. —Deficit.

New or Improved Equipment

Le Roi Develops Light Plant of Weatherproof Construction

A weatherproof light plant of unusual design has been announced by Le Roi Co. of Milwaukee, Wis. This new plant is powered by a four-cylinder, 133-cu. in. Le Roi engine equipped to burn either gasoline or natural gas and running at the conservative speed of 1,200 r.p.m. Two types of generators are available, either a 5-kw., 100-volt, d.c., or 5-kva., 110-volt, single-phase, 60-cycle, a.c. Both are two-bearing, ball-bearing, splashproof machines.

An illuminated instrument panel is built into a ventilated weatherproof cabinet in the rear of the housing. This panel is fitted with ammeter and voltmeter, automatic circuit-breaker and field rheostat. The weatherproof receptacle for the load-carrying cable is conveniently located in a protected position on the side of the unit under the control cabinet. Electric-starting equipment for the engine is optional.

Oil Equipment Men of Foreign Service Organize "Nomads"

Realizing a community of interest exists among men who have traveled in foreign fields for oil equipment manufacturers, a group in California started an association to provide social contacts. By means of biweekly luncheons, details of organization were threshed out and the name "Nomads" was selected. Believing the association should be national, the group made their organization a Los Angeles chapter and invited others to form similar chapters. Such chapters are being formed in Houston, Tex., and Tulsa.

The objects of the organization are strictly social, fraternal, and educational, and its meetings will consist of monthly dinners. Active membership is limited to men who have visited foreign countries in the interest of oil equipment manufacturers. Associate members are men who devote a substantial portion of their time to oil equipment export business. Honorary members may be elected from men in outstanding positions in foreign service for oil companies.

Officers elected by the Los Angeles chapter are: E. L. Decker, Martin-Decker Corp., president; F. C. Ripley, Emsco Derrick & Equipment Co., vice president; W. F. Bettis, M. O. Johnston Oil Field Service Corp., secretary-treasurer; Earl Rees, Fluid Packed Pump Co., assistant secretary-treasurer; Henry Pullman, Baker Oil Tools, Inc., sergeant at arms; E. B. Fowks, Emsco Derrick & Equipment Co., assistant sergeant at arms.

The Los Angeles members are J. C. Axelson, Ray Humphries, and Abe Haglund, Axelson Manufacturing Co.; George Anderson, Carlton Baker, Jr., Ted Sutter, and Henry Pullman, Baker Oil Tools, Inc.; Jack Ballagh, Patterson-Ballagh Co.; W. F. Bettis and Blaine Johnston, Jr., M. O. Johnston Oil Field Service; S. R. Bowen and Jack Wilcox, S. R. Bowen & Co.; B. Bronzan and Hans Ross, Baash-Ross Tool Co.; Frank Champion and Roland Smith, Byron Jackson Co.; Larry Coker and Joe Dunn, National Supply Co.; E. L. Decker, W. R. (Frosty) Martin, and Tom Murphy, Martin-Decker Corp.; Norman Dorn and E. R. Smith, Lane-Wells Co.; Calvin Drake, Hydril Co.; John Eastman, Eastman Oil Well Survey Corp.; R. J. Eiche and Tom Martin, Lorraine Corp.; J. E. (Brick) Elliott and Floyd Merritt, Elliott Core Drilling Co.; E. B. Fowks and F. C. Ripley, Emsco Derrick & Equipment Co.; John Grant, Grant Oil Tool Co.; L. T. Hamer, Hamer Oil Tool Co.; Clarence Hill, Oil Well Supply Co.; A. D. Love, Chiksan Oil Tool Co.; Roy McCollum, Parkersburg Rig & Reel Co.; C. J. McLaren, Hughes Tool Co.; Harry Morehouse, Wagner-Morehouse; L. J. Paddock, Stoody Co.; George Ratcliff, Baroid Sales; L. A. Rawson, Stoddard-Rawson, Inc.; Earl Rees, Fluid Packed Pump Co.; S. R. Robinson, Yowell Service Co.; Wallace Sawdon, Petroleum Engineer; Walter Seymour, Non-Corrosive Products Co.; Joe Swaton, Kerotest Manufacturing Co.; Harry Therolf, Eason & Therolf Tool Co.; Ed Thompson, Security Engineering Corp., Inc.; Clarence White, Oil Well Manufacturing Corp.; Clay Johnson, Shaffer Tool Works.

Inventory Service Co. Formed

R. E. Giddens, whose experience includes 15 years with Lucey Products Corp., has organized Inventory Service Co., Tulsa, whose function is to compile physical inventories of practically any oil industry property. Mr. Giddens was prompted by his knowledge of the importance of accurate inventories and the fact that hundreds of drilling contractors and producers have limited facilities for such work. Uses of the service by contractors and producers include inventory and valuation of production and drilling equipment, inventory of turnkey and joint interest property and inventory of multi-ownership property where independent inventory is desirable.

Design Engineer For Bethlehem

John F. Eaton has been appointed design engineer of Bethlehem Supply Corp. Mr. Eaton was formerly with the Jarecki Manufacturing Co. as sales engineer, and later with the American Steel Derrick Co. as mechanical engineer. He is a mechanical engineering graduate of Princeton University and a registered professional engineer of Oklahoma. Going to Tulsa in 1932 from his home in St. Louis, Mo., Mr. Eaton has been active in engineering circles. He has been a member of the Engineers Club of Tulsa since it was organized.

Trade Literature

LUFKIN FOUNDRY & MACHINE CO., Lufkin, Tex.—Current issue of the Lufkin Line.

CATERPILLAR TRACTOR Co., Peoria, Ill.—Diesel D-7 tractor catalog.

McKAY CO., Pittsburgh, Pa.—16-page booklet on McKay certified stainless-steel electrodes.

LAMINATED SHIM CO., INC., 2186 Forty-fourth Avenue, Long Island City, New York.—Shim application chart.

WORTHINGTON PUMP & MACHINERY CORP., Harrison, N. J.—Bulletins on high volumetric piston pumps and centrifugal hot-charge pumps.

MIXING EQUIPMENT CO., INC., 1088 Garson Avenue, Rochester, N. Y.—Bulletin on Lightnin side-entering mixers.

FRANKLIN INDUSTRIAL SERVICE, Inc., 17 John Street, New York.—Looseleaf handbook on wire and filter cloth, their fabrication and uses.

CLIMAX MOLYBDENUM CO., 500 Fifth Avenue, New York.—Current number of the Moly Matrix.

INTERNATIONAL NICKEL CO., Inc., 67 Wall Street, New York.—June issue of Nickel Steel Topics.

MACWHYTE CO., Kenosha, Wis.—18-page booklet on wire rope, 'Life Hangs by a Thread."

Speeder Trench-Hoe Conquers Rocks and Mountain Grades

The illustration shows workmen digging trench for a gas pipe line in the hills of West Virginia with a ⅝-yd. Speeder Model LS-40 trench-hoe. It is one of a number of small machines used by Williams Brothers Corp. on this job. The work was exceptionally hard for two reasons. There was much rock, and the grades were steep. But for the grades, a 1¼-yd. machine might have been employed. The smaller machines were able to travel under their own power on grades so steep that tractors had to be towed. At times the angle at which the trench-hoe had to work necessitated the use of cables to secure it to nearby trees and thereby prevent movement downhill. Speeder shovels, draglines, and cranes are built by Speeder Machinery Corp., Cedar Rapids, Iowa, recently acquired by Link-Belt Co., Chicago.

Baker Acquires St. Louis Plant

Baker Oil Tools, Inc., has acquired the plant and equipment of Bartlesville Supply Co., St. Louis, Mo., where manufacture of Barsco products will be continued, both for domestic and for export distribution. G. D. Hall has been appointed plant manager, C. A. Walker will continue as plant superintendent, and J. O. Buchta will be special sales representative for Barsco products. Baker plans to improve manufacturing facilities at the plant.

Wiese General Manager of Sales

J. Frederic Wiese, since 1935 assistant to the vice president of Lukens Steel Co., Coatesville, Pa., has been appointed general manager of sales. Mr. Wiese was born in Parkesburg, Pa., and graduated from Swarthmore College in 1921. He was with Parkesburg Iron Co. until 1926, when he joined Lukens. He has served continuously in its flanging, railroad and general sales departments, with the exception of part of 1928. In 1935 Mr. Wiese was appointed assistant to the vice president in charge of sales, in which capacity he served until his recent advancement. Mr. Wiese is a member of the American Iron and Steel Institute.

Smith Offering Meter Built for Use in Measuring Butane

A meter built especially for measuring butane is being introduced by Smith Meter Co., Milwaukee, Wis. For the past five years the company

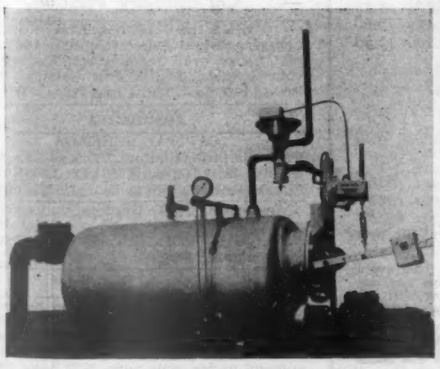
has worked closely with the petroleum industry in designing and building various types of meters for loading-rack, tank-truck, pipe line, marine terminal, and refinery service. The new butane meter, Model BU-40, was developed to meet the need for fast and accurate control in handling and dispensing butane. It is the result of years of experience in building meters for liquefied gases and conforms with the butane code in that it is built to withstand 250 lb. of working pressure. Noncorrosive construction permits satisfactory use with all types of commercial butane.

Many operators already are using this new meter on their tank-trucks and dispensing-racks to eliminate handling losses, according to Allan Floyd, president of the Smith Meter Co. He adds that an accurate meter on trucks eliminates misunderstandings and builds good will.

BS&B Blow-Case Is Designed to Prolong Well's Flowing Life

To prolong the flowing life of wells, Black, Sivalls & Bryson, Inc., Oklahoma City, has developed the automatic blow-case. This device is designed to operate on extremely low-pressure wells. Its primary function is to pump the production into the stock-tanks when the pressure drops too low to lift the oil.

The oil flows by gravity from the separator to the blow-case, inside of which is a float. The float



trips an automatic primary valve, which admits gas pressure from the residue lines. The gas pressure forces the oil into the stock-tanks. The gas pressure is released when the descending float trips the escape valve. The vent gas may be connected back into the separator.

For cases of limited gas supply, B.S.&B. furnishes gas-saver valves, which operate on a cycle similar to that of the steam engine. For use of the blow-case as a meter, the company has perfected its new piston-type counter.

Here and There With Men Who Manufacture Equipment

Edwin H. Fitler Co., rope manufacturer, has completed a modern office building at its main plant in Tacony Street, Frankford, Philadelphia, Pa. Ample warehousing facilities together with strategic location allow rapid delivery service by truck, train, and steamship.

Great Lakes Carbon Corp., newly organized, has taken over and will continue the business of the Great Lakes Coal & Coke Co. George Skakel is president and Walter Gramm vice president.

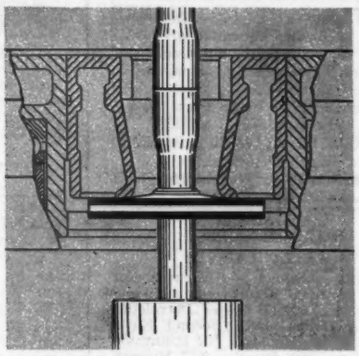
Rust-Oleum Corp., 1820 West Grand Avenue, Chicago, has opened an office, with Allen Laird in charge, at 310 Thompson Building, Tulsa. From this office all of Oklahoma, Kansas, and the Panhandle of Texas will be handled. Rust-Oleum paints are rustproof, dampproof, and fume- and heat-resistant.

Correction

In the issue of June 15 a new boiler of Lucey Boiler & Manufacturing Corp., Chattanooga, Tenn., was said to have a working pressure of 50 lb. It should have read 350 lb.

Dilution of Rotary Mud Avoided by Medearis Drillpipe-Wiper

Medearis Oilwell Supply Co., 8638 Otis Avenue, South Gate, Calif., offers a drillpipe-wiper that, according to the manufacturer, prevents dilution of rotary mud and the necessity of reconditioning it on each round trip. It is marketed under the trade name "Medearis Dri-Pipe wiper."



This drillpipe-wiper is designed with two rigid clamping rings of nonsparking metal which hold a circular red-rubber wiping-disc. This disc is molded of a specially compounded rubber, and has a control hole surrounded with concentric beads correctly spaced for the various sizes of pipe. As the central hole becomes enlarged through wear, the rubber can be cut away to the next head to provide a new wiping surface for the next larger size of pipe. When the rubber disc is no longer servicable it is discarded and a new one installed between the metal clamping rings.

SMITH INTRODUCING FULL LINE OF OIL-WELL CASING

A. O. Smith Corp., Milwaukee, Wis., is now a full-line manufacturer of oil-well casing, with a complete range of A.P.I. standard sizes down to 5½ in. in outside diameter and in wall thicknesses to meet practically any casing need. The company announces that Smith casing is now available in four grades, including a new and still higher-yield strength product, called Super Yield casing.

With a minimum yield point of 105,000 lb. per sq. in., Super Yield casing is made in the smaller sizes for extremely high collapse pressures. According to the company statement, "it offers new economy with safety, particularly for deeper holes."

The illustration shows a length of Smith high-yield casing (left foreground) emerging from one of the special machines developed for this production.

Involving new methods of manufacture, the new small sizes, like all Smith casing, are made from rolled steel plates. This permits thorough examination of the steel before manufacture and assures uniform wall thickness. The new sizes are manufactured in average lengths of 50 ft., shortening running time for strings by requiring fewer joints.

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Leases and Drilling Blocks

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WHY A DRY HOLE?
Have your land or lease examined, honest opinion given, location made. Address Box K-153, The Oil and Gas Journal, Tulsa, Okla.

MILLIONS OF DOLLARS have been paid to the owners of shallow gas and oil wells in the Eastern Kansas Fields. Countless thousands of such wells are now producing, some over twenty years. Depths vary from 350 to 800 feet for both oil and gas. This makes cost and investment low. Returns are in greater proportion than most deeper wells. Have several good blocks in proven fields from 40 acres to 4000. Will drill key job price on well or deal leases. Write for details.
H. B. SNYDER
Box 126,
Ottawa, Kansas.

Leases and Drilling Blocks

MISSOURI leases in blocks and scattered acreage. HARRAH & FRITH, Chillicothe, Missouri.

YOAKUM CO., Tex., 10 yr. oil lease on 980 acres in Sec. 596 and 597 for sale. Tract is ¾ x 2 miles and traverses high trend near Roberts pool. Owner, DR. J. A. ROBINSON, 233 21st Place, Santa Monica, California.

NEW MEXICO WEEKLY OIL SCOUT REPORT. — Send for sample copy. Roy G. Barton, Box 968, Hobbs, N. M.

OIL AND GAS leases, near wells on structure. Forest City Basin. Box 423, St. Joseph, Mo.

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INVESTORS, brokers, salesmen, a new deal in shallow production, best ever offered. You receive an interest in 40 acres on which I drill a well. In addition you receive a lease on 50 acres abutting the 40 I drill. All in proven area. Your total investment only $150.00. Buddenborg, Osawatomie, Kans.

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Box 347, Santa Fe, New Mexico.

320 ACRES, Crane Co., Tex., Magnolia lease, cheap in fee. Address 415 Littlefield Building, Austin, Texas.

SACRIFICE 40-acre Oil Lease, Chaves County, for only $10.00, full price. Guarantee title. P. O. Box 191, Clovis, N. Mex.

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BOX 382,
Osawatomie, Kans.

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Leases and Drilling Blocks
Tell us your requirements and receive promptly full and accurate information.
OILFIELDS INFORMATION AGENCY
C. T. Fillan
810 Lancaster Bldg., Calgary, Alberta.

Leasing and Drilling Blocks

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P. O. Box 774 Oklahoma City, Okla.

FOREST City Basin — Atchison Co., Kans. 40 ac. leases near new well location. Margaret Haynes, Rt. #3, N. Topeka, Kan.

HAVE spreads and drilling blocks in Missouri for sale or trade, or if you have equipment capable of 2,000 feet, a mutually profitable arrangement might be made.
Address Box J-152,
The Oil and Gas Journal, Tulsa, Okla.

RELIABLE drilling contractor with good rig will sell 1/8 interest in 200-acre oil lease, high gravity shallow oil district northeast of Tulsa for $50. to buy fuel to drill first well. Casing furnished. Money may be escrowed in bank until well is completed to pay sand. Write for full details and references. Box 83, Foyil, Okla.

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EXPERIENCED stillman, 10 yrs. one company, now available. Sober, industrious, capable. Address Box K-143, The Oil and Gas Journal, Tulsa, Okla.

OIL SPECIALIST tax consultant. Age 37. C.P.A. 14 yrs. experience, which includes systematizing, financial reports, and diversified public accounting. Highest credentials as to integrity and creative ability. Address Box K-130, The Oil and Gas Journal, Tulsa, Okla.

SECRETARY-STENOGRAPHER, 10 yrs. legal and oil experience. Excellent references. Phone 4-0828.

EXPERIENCED Oil Field Equipment salesman wants to associate with manufacturer who desires to sell products thru supply stores on a commission basis. Address Box K-154, The Oil and Gas Journal, Tulsa, Okla.

Royalties

ANDREW J. BARRETT
The Philtower
Tulsa, Oklahoma

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Sell in the most active area in the United States—The Permian Basin of West Texas and Southeastern New Mexico. From the standpoint of royalty investors this area has much to offer. Can supply you with choice non-producing royalties located on geophysical highs. Also drilling blocks, close in acreage to production, or wildcat leases. I maintain my own field men who cover this area for me. All offerings meet the requirements of the Security and Exchange Commission. Inquiries invited.

B. D. BUCKLEY
Paul Brown Bldg., St. Louis, Mo.

PRODUCING OIL ROYALTIES
15 years of experience.
L. H. WITWER
703 Kennedy Bldg., Tulsa, Okla.

WILL BUY non-producing landowners royalty—under drilling wells only. P. H. HAWLEY, 727 W. 7th St., Los Angeles, Calif.

WANTED producing oil royalties and oil payments in North and West Texas and New Mexico. P. O. Box 1535, Fort Worth, Texas.

WANTED non-producing land owners royalty under drilling wells only. Eldon J. Dick, 305 Public Service Building, Tulsa.

ROYALTY INTERESTS bought and sold; under TEXAS, GULF and SUN blocks, Concordia Parish, Louisiana. Inquiries and offerings invited. J. G. REAVES, REAVES BLDG., TYLER, TEXAS.

OWNERS of fractional landowners royalty interests still paying send full details to City Investing Co., 434 Roosevelt Bldg., Los Angeles, Calif.

WILL buy producing royalties and mineral rights in Arkansas. P. O. Box 807, El Dorado, Ark.

Incorporations

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CHARTERS — Delaware best, quickest, cheapest, more liberal. Free forms. Colonial Charter Co., Wilmington, Del.

Mailing Lists

ROYALTY Lists. Unit Owners Lists. Stockholders Lists. By states. Oil Industry Mailing List Co., Tulsa Loan Building, Tulsa, Oklahoma.

Oil Industry Printing

OIL FIELD LEGAL BLANKS
Leases, assignments, releases, township plat books, well records, etc. Request on your letterhead gets free catalog. Olds Press, 215 East Third St., Tulsa, Okla.

Financing

CAPITAL SEEKERS
Put your project before 260 Key-Men. Cost trifling. Details free. AMSTER LEONARD, Fox Theater Building, Detroit, Michigan.

AMERICA'S 83 leading underwriters who bought a billion of securities 1938. $3.00. JOHN MORRIS, 1040 South Paxon, Philadelphia, Penna.

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WANT CAPITAL to invest in perpetual mineral rights in North Permian Basin in Texas and New Mexico in major company blocks on geophysical highs. Rapid development under way now. Will take interest after all monies have been repaid. Address, Box J-990, The Oil and Gas Journal, Tulsa, Okla.

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THE OIL AND GAS JOURNAL
Tulsa, Oklahoma

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3000 bbl. cap. Kellogg Cracking Unit—Two Furnaces—Pacific Centrifugal Charging Pumps all Complete.

Will sell "as is and where is" or take turnkey job for dismantling and reerection.

Send us your inquiries.

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When all other methods fail, employ my divining or dowsing method. If oil exists this method finds it. Faults, broken, treacherous areas accurately defined. Our Watson #2, first producer Wilmington, Calif. field, located by this method. More reliable than mechanical geophysics. Ask any unbiased oil authority. Many years' experience. A wise man investigates. George Miller. 1548 Post, Torrance. Calif

Business Opportunities

WANTED—Partner to take half working interest 78-acre lease Kentucky shallow field. Will sell half, including first well to top sand, for $1,500.00. Three offsets. No proration. References. Address Box K-151, The Oil and Gas Journal, Tulsa, Okla.

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CONTINUOUS-COUNTER FLOW
PRACTICAL SMALL UNIT

Want financial help for engineering and patents. Special inducements to refinery making first installation. Address

BOX K-150,
The Oil and Gas Journal,
Tulsa, Okla.

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NEW MEXICO TOWNSHIP PLATS. $1.00 each; 4 in same area $3.50 covering all LEA, Eastern ROOSEVELT and EDDY COUNTIES—showing ownership and OIL DEVELOPMENT.

ZINGERY OIL MAP COMPANY
Fair Bldg. Fort Worth, Tex.

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FOR SALE

HOUSTON, TEXAS INDUSTRIAL DISTRICT. 27 acres whole or part. Steel shed 75x300; equipped with 7 ton Milwaukee traveling crane, ideal for oil tool manufacturing plant. Rail, water, highway connections. Further details upon request. Write, phone, or wire: The Vaughan Lumber Co., P. O. Box 1447, Houston, Texas.

25 K.W. and 40 K.W. Gas Engines, 220 volts, D.C. Two 100 K.W. Gas Engine-Generator Sets, 220 volts, D.C. 7x6 Ingersoll-Rand ER-1 Air compressor. Six-inch Oster Pipe Threading Machine. Also large stock of lathes, pipe machines, milling machines, etc. Send for our list.

Terms to suit.

CINCINNATI MACHINERY & SUPPLY CO.
26 West 2nd St. Cincinnati, Ohio.

FOR SALE: Two 6' x 42' Smithweld Pressure vessels with 3" wall. The National Refining Co., Hanna Bldg., Cleveland, Ohio.

FOR SALE OR LEASE—Class E Sanderson Cyclone 1,500-ft. drilling machine located in Ohio. Address Box K-123, The Oil and Gas Journal, Tulsa, Okla.

FOR SALE—1-10,000 bbl. bolted Tank. Also equipment for both 1,000 and 2,000 bbl. Skimming Plants. Western Tank & Road Supply Co., Wichita, Kansas.

FOR SALE—One Wilson Giant winch powered by P A 100 International motor. Perfect working condition. Earl H. Carter, Box 1227, Shreveport, La.

F O R S A L E

48' x 160'—16' Walls. hvy. construction Wisconsin Bridge & Iron Steel Building. 18 and 22 Ga. Galv. Iron. Located at Maud, Okla. $4,000.00 as stands, erected on present location.

48' x 80'—16' Walls hvy. construction Wisconsin Bridge & Iron Steel Building. 18 and 22 Ga. Galv. Iron. Located at Garber, Okla. $2,400.00 as stands erected on present location.

THE NATIONAL SUPPLY CO.
TULSA, OKLA.

IF YOU buy or sell royalties, leases or production, DON'T FAIL to check each item listed in these classified columns. They comprise the best medium of exchange available to you.

Classified Department.

FOR SALE—SACRIFICE PRICE

TEN Complete Rotary Drilling Rigs. Steam and Diesel Powered. Large and Small.

Large Amount of Extra Drilling Equipment, Boilers, Engines, Pumps, etc.

TEN White Trucks Equipped for Oil Field Hauling.

All equipment in good condition and modern. Will sell any part or all. Especially suited for foreign country. Write me your wants.

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606 N. Field St. Dallas, Texas

FOR SALE

Heavy Cable Tool Outfit 87' x 437,000# capacity Lee C. Moore Derrick, with 6 manganese sheave chain oiling crown block, steel walking beam, steel pitman with self aligning bearings, oil bath side irons, heavy steel bandwheel, bullwheels, calfwheel, with bands, levers, and staples, irons, etc. Complete and in guaranteed A-1 condition, a real bargain at $2,200.00 f.o.b. Tulsa. Address Box K-131, The Oil and Gas Journal, Tulsa, Okla.

225,000-GALLON oil jobbing plant equipped to blend motor oil and manufacture greases. Gasoline and kerosene storage. Ready for operation. Located Tulsa, Okla. Box 284.

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Government crawler type Caterpillars, 5 ton $375, 10 ton $695, Slightly used. Perfect condition.

O. C. EVANS
Mt. Sterling, Ky.

Equipment Wanted

WANTED: 1 good used 18' National double eccentric band wheel unit with 35 HP oil field type engine, power house, circulating tank, etc. Must be worth the money and in good condition.
W. T. Waggoner Estate, Vernon, Texas.

Legal Blanks

SINCE 1908 Burkhart's legal forms—serving Mid-Cont. oil fields, including Ill., La., Mo., Ind. & Ky. Free catalog & samples. Burkhart Ptg. & Sta. Co., 115 So. Cinn., Tulsa, Okla.

Gulf Coast Fields

(Continued from Page 100)

University Field Cut Off

The northeast side of the University field, East Baton Rouge Parish, was defined by W. V. Bowles and others No. 1 Richard Community, 1 mile from production in Section 46-7s-1e. Salt-water sand was cored at 6,516-35 feet, the total depth, and the well is shut down. George Echols No. 1 Evans Duplantier, Section 68, is bottomed at 6,506 ft., and 7-in. casing is being cemented after a good section of oil sand was cored. There are seven active operations in the field and locations for two more wells were made by William Helis on the Farris-Middleton lease in Section 66, and T. G. Markley and others for No. 2 Knox in the same section.

On the Paradis prospect, St. Charles Parish, Texas Co. No. 1 L. L. & E., Paradis, Section 39-14s-20e, perforated casing at 8,895-8,730 ft., and the well flowed an estimated ⅛ bbl. of distillate per hour through a ¼-in. choke under a working pressure of 3,000 lb. The company will squeeze off the perforations and drill out and make final completion between 9,815-9,915 ft. Five production tests have been made at intervals from 8,800-10,000 ft., and all showed various amounts of distillate.

Abbeville Extended

The Abbeville field, Vermilion Parish, was extended about 3,200 ft. southeast as Stanolind Oil & Gas Co. completed No. 1 Blanchett for an initial production of 25 bbl. of distillate per day, flowing through a 10/64-in. choke with tubing and casing pressure equalized at 2,000 lb. The well was drilled to a total depth of 8,009 ft. and the completion was made through perforated casing at 7,897-7,900 ft. Northeast of the field, Continental Oil Co. No. 1 Duhon, Section 17-12s-3e, is reported to have tested mud, water and gas on a drill-stem test at approximately 10,112-70 ft.

TEXAS GULF COAST COMPLETIONS IN PROVEN FIELDS

Brazoria County

Hastings field: McDannald Oil Co. No. 1 Riper, 6,191 ft., abandoned. Old Ocean field: Harrison & Abercrombie No. 1 Markle, 10,079 ft., abandoned. West Columbia field: Mike Hogg No. 1-A Hogg, 2,000 ft., abandoned. Texas Co. No. 5 Rebecca Goldman, perforated casing 5,214-33 ft., 480 bbl., ¼-in. choke.

Chambers County

South Cotton Lake field: Salt Dome Oil Corp. No. 1 Williams, perforated casing 6,505-08 ft., gas well.

Hardin County

Sour Lake field: Nat Sadler Co., Inc., No. 1 Fisher, sand 2,001-21 ft., 39 bbl., pumping.

Harris County

Bammel field: Hamill & Hamill No. 1-D C. T. Zapp, 6,800 ft., abandoned. Eureka field: M. G. Hansboro No. 1 S. A. Winship, 8,256 ft., abandoned. Fairbanks field: Amerada-Stanolind Oil & Gas Co. No. 6 Foley, perforated casing 6,851½-54½ ft., 168 bbl., ⅛-in. choke. Union Producing Co. No. 6 Whitehead & Rash, perforated casing 6,835-45 ft., 150 bbl., ⅛-in. choke. H. E. Williams No. 4 Stern, perforated casing 6,832-36 ft., 345 bbl., ¼-in. choke. Friendswood field: Humble Oil & Refining Co. No. 1-B Hebert Godwin, sand 6,035-43 ft., 546 bbl., ¼-in. choke. Humble Oil & Refining Co. No. 30-B Humble-West, sand 6,053-67 ft., 422 bbl., ¼-in. choke. Tomball field: Shell Oil Co., Inc., No. 6 Rudel, sand 5,565-79 ft., 252 bbl., ¼-in. choke.

Jefferson County

Clam Lake field: Shell Oil Co., Inc., No. 5 McFaddin, perforated casing 3,842-47 ft., 91 bbl., ⅛-in. choke.

Liberty County

Hull field: Keown Oil Corp. No. 1 Hankamer and others, sand 410-20 ft., 10 bbl., pumping.

Matagorda County

Van Vleck field: Skelly Oil Co No. 3 First National Bank, perforated casing 8,469-99½ ft., 198 bbl., ⅛-in. choke.

Orange County

Orange field: Gulf Oil Corp. No. 3-B LaFlour, 5,921 ft., 179 bbl., ⅛-in. choke. Intra-State Oil Co. No. 2 Harmon, perforated casing 5,658-59 ft., gas well.

Polk County

Ace field: Patrick & Tyrell Drilling Co. No. 1 Kirby Lumber Co., perforated casing 7,810-20 ft., 288 bbl., ⅞-in. choke.

Wharton County

Louise field: Gulf Stream, Inc., No. 6-A Whiteside, sand 5,154-62 ft., 375 bbl., ¼-in. choke. Withers field: McDannald Oil Co. No. 1 Clayton-McCracken, 5,547 ft., 40 bbl. in 11 hours, ⅛-in. choke.

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